

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



FARMER OPINIONS AND OTHER FACTORS INFLUENCING COTTON PRODUCTION AND ACREAGE ADJUSTMENTS IN THE SOUTH

By T. B. MANNY, *Senior Agricultural Economist, Division of Farm Population and Rural Life, Bureau of Agricultural Economics*

CONTENTS

	Page		Page
Introduction.....	1	Sources and application of economic information about cotton.....	24
Scope and method of study.....	2	Outlook information and the cotton grower.....	26
Limitations.....	2	Production of crops other than cotton.....	29
Cotton-acreage changes.....	3	Feed crops.....	29
Annual changes, 1926-1931.....	3	Crops that might be substituted for cotton.....	30
Reasons for annual changes.....	5	Advice of county agricultural agents.....	34
Influence of 1930 price on 1931 acreage.....	8	Some observations based upon enumerators' field notes.....	35
Influence of credit on 1931 acreage.....	9	A "cotton civilization".....	35
Influence of local business men on 1931 acreage.....	10	A copper problem.....	36
Factors that underlie cotton-acreage adjustments.....	11	Climate.....	37
Long-time farming plans.....	12	Production credit.....	38
Short-time considerations.....	13	Conclusions.....	38
Enumerators' judgments regarding underlying farmer reasons.....	15	Applying to operations of cotton producers.....	39
Tenure.....	16	Applying to agricultural extension services.....	40
Size of farm business.....	17	Applying generally.....	41
Schooling of farm operators.....	19		
Adjustments in fertilizer bought for cotton.....	23		

INTRODUCTION

Planning and executing various adjustments in the farm business are demanding an ever-increasing share of the farm operator's time and energy. Persons and agencies seeking to help farmers make these adjustments effectively are directly concerned with the problem of how best to appeal to farmers. Proposed changes in the customary way of doing things meet more or less resistance from those who might be expected to make such changes. This report, the result of a year's research, attempts to answer some questions involved in the problem. Its objectives may be summarized as follows:

(1) To note recent changes in acreage planted to cotton and to other important crops. (2) To learn the reasons given by farmers for planting the specific acreages they did. (3) To determine, if possible, the premises upon which these farmer decisions were based and the sources of information used in arriving at decisions of this kind. (4) To note the extent to which interviewed farmers received and utilized the outlook information prepared and distributed by Federal and State agencies. (5) To note general differences as regards the acreage adjustments between farmers as classified by

various factors such as size of farm, tenure, schooling, length of farm experience, etc. (6) To discover the chief sources of resistance to adjustments in the farm business, especially sources that are not exclusively economic in character.

It is also hoped that this study may shed some light on the question of how to bring agricultural outlook information to the attention of the largest possible number of farmers in such a way that they will be able to use this service most effectively.

SCOPE AND METHOD OF STUDY

In the course of the study, 834 farmers in 11 counties were interviewed. Each interview required from 20 minutes to 2 hours, or an average of about 45 minutes. The counties were chosen with the advice of State colleges of agriculture. These counties were selected as representative of three principal cotton-growing areas east of the Mississippi River: The Mississippi Delta, the piedmont, and the South Atlantic coastal plain. In the following discussion these names are abbreviated to the Delta, the piedmont, and the coastal plain, respectively.

Within each county, three representative localities, one for each field worker, were selected after consultation with the county agricultural agent. In these localities, the enumerators tried to secure "down-the-road" samples, interviewing every farmer who was in a position to decide how much land should be planted in various crops each year. Share croppers were not interviewed because they seldom decide these matters for themselves but follow a production program outlined by the landlord or his manager. Farmers whose operations covered fewer than 2 crop years before 1931 were not questioned. Seventy to eighty completed schedules were obtained in each county. Usually the enumerators worked out from a common center and met frequently to discuss their work and standardize their methods.¹

LIMITATIONS

No claim is made that the findings of this study are necessarily typical of localities other than those surveyed. The study is new in type and some of the techniques employed are still in the experimental stage. Until results from other localities are available, it is impossible to draw many generalizations applicable to the Cotton Belt as a whole. It is believed, however, that the responses form a representative sample of the counties surveyed; and to the extent that these counties are typical of their respective areas, the results would seem to be about equally applicable.

This study was not made in what might be termed a normal year. The price of the 1930 cotton crop as compared with that of the preceding year had dropped severely. In the Delta the 1930 drought had an appreciable effect upon farm-production plans for 1931. A third abnormal factor was the labor situation. In the Delta, a number of share croppers and their families who had migrated to northern industrial centers during the last several years, returned to their former locations because lack of work in the cities soon exhausted what little they had saved from their earnings. Rather than permit the returning migrants to become public wards, many

¹ The enumerators who conducted these interviews were J. E. Mann and F. C. Bouknight, graduate students of North Carolina State College, and the author.

planters, in spite of their own perplexing farm conditions, gave work to a few of these families. A somewhat similar condition was found in the other areas surveyed, where sons and daughters of a number of interviewed farmers had come home when they were unable to find work elsewhere.

The farmers' statements indicate widespread recognition of the abnormalities of the 1931 season. As these men compared what they were doing in 1931 with what they did in years just preceding, the majority seemed to take these unusual elements into account and to reply for the earlier years without serious bias. The major trends in their replies are sufficiently marked to overcome whatever bias of this kind may have remained in the answers of a few individuals.

This study deals chiefly with farmer opinions rather than with more objective data. That some people's acts are at variance with their expressed opinions is a common observation. Such discrepancies are especially frequent when highly controversial issues are involved or when the emotions are brought prominently into the situation. In this study certain basic questions were asked several times during each interview, using a somewhat different wording. Answers to these questions were checked for differing replies. Some additional checking was possible as between acreage figures and certain questions involving opinion answers.

Among the farmers' replies to enumerators' questions are some that are not the basic or real reasons for the action taken by these farmers and for which action their reasons were sought. This is a serious problem confronting research projects involving the use of opinion replies. In the present project, two ways of meeting the difficulty seemed possible. One was to require the enumerator, upon receiving a farmer reply that did not seem to be a real reason, to ask an additional question or two of the farmer in order to probe a little deeper. However, this method involved some added complications, especially that of introducing a much greater opportunity for bias to creep in, depending upon what extra questions the enumerator asked and how he asked them. Thus after a preliminary trial the difficulties of this plan seemed to outweigh its merits so it was discarded. The second plan was to write down the first reply to each question given to the farmer, and to have a sufficient variety of standardized questions to put to each farmer so that as the interview proceeded, such answers as were not real reasons were more or less offset by replies to subsequent questions. Using this latter method in the present survey, it was found when the replies were tabulated that for only a comparatively small number of questions did inadequate replies figure to any appreciable extent.

The foregoing limitations should be borne in mind when interpreting the results of this study. However, it seems that, on the whole, the major trends indicated in the farmers' replies are sufficiently pronounced to more than offset the bias created by these limitations, though in the case of some individual replies the reverse might be true.

COTTON-ACREAGE CHANGES

ANNUAL CHANGES, 1926-1931

The acreages planted to cotton annually, from 1926 to 1931, by the interviewed farmers are shown in Table 1. Following the huge cotton crop of 1926 and its much lower price per pound compared

with that of the year previous, these farmers made some reduction in acreages the next year in most of the counties surveyed. But in two Delta counties, the disastrous floods of 1927 were much more influential in reducing the cotton acreage than was the price situation, according to the reports of many farmers. During the next three years, the average acreage per farmer showed a marked tendency to increase in two areas whereas in the coastal plain there was a slight decline in cotton production for which boll-weevil damage and expanding acreages of other cash crops were chiefly responsible.

TABLE 1.—Average annual acreage planted to cotton, 1926–1931, as reported by interviewed farmers, classified by localities ¹

Area, county, and State	Average per farmer reporting for —						6-year average
	1926	1927	1928	1929	1930	1931	
Mississippi Delta:	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>
Coahoma, Miss.	1,001.1	971.9	947.0	974.2	1,006.1	901.3	966.1
LeFlore, Miss.	643.8	659.4	703.7	703.1	721.0	674.0	687.2
Washington, Miss.	1,069.8	682.4	761.6	782.6	798.1	803.6	805.6
Average.	913.8	779.5	807.6	823.2	844.6	794.9	824.5
Piedmont:							
Anderson, S. C.	100.2	101.4	107.5	110.2	111.2	103.5	105.7
Chester, S. C.	75.7	72.3	77.7	80.7	81.5	73.0	76.9
Davidson, N. C.	7.5	7.9	6.7	6.9	7.7	5.7	7.0
Walton, Ga.	54.8	53.6	62.0	64.1	68.5	61.7	61.2
Average.	63.3	62.3	65.7	67.9	69.8	63.4	65.5
South Atlantic coastal plain:							
Cumberland, N. C.	46.3	43.9	41.2	40.5	36.9	29.3	39.4
Dooly, Ga.	166.9	134.3	120.4	123.8	132.9	112.7	128.9
Edgecombe, N. C.	141.9	133.7	138.5	138.4	126.2	90.0	127.5
Orangeburg, S. C.	123.3	126.0	118.0	120.6	114.1	95.7	115.7
Average.	114.9	107.9	103.8	105.0	102.3	81.8	101.9

¹ Averages were obtained by dividing the total number of acres by the number of farmers reporting.

In 1931, in all but 1 of the 11 counties, farmers reported, on the average, some decrease in cotton acreages compared with those planted in 1930. The decreases were least marked in the Delta where cotton growing is carried on chiefly under the plantation system with many share croppers and share hands on each plantation. In the two other areas, where a larger proportion of the land is farmed in smaller units, including many family-sized owner-operated farms, or owner-operated farms having a few croppers in addition, these decreases were proportionately larger. The decreases were relatively most pronounced in the coastal plain.

The general picture is presented in a somewhat different way in Table 2. Here the extent of increase or decrease is disregarded; the percentages of all interviewed farmers that reported increases or decreases or no changes in cotton acreage, compared with the preceding year, are shown. The percentage of farmers who decreased their acreages planted to cotton in 1931 (following a low-price year) is much greater than that in 1927 (following another low-price year). To eliminate the flood factor for the Delta in 1927 would make the contrast even more pronounced. Mortgage foreclosures, sales of tax-delinquent property, bank failures, and inability to secure sufficient production credit doubtless exerted more influence in favor of reduced

acres in 1931 than in 1927. Since 1927 the percentage of Delta farmers who increased their cotton acreages is somewhat larger than obtains in the other areas. An unusually high proportion of coastal-plain farmers reduced their cotton acreages in 1930 because of low prices and discouraging prospects and because of boll-weevil infestation.

TABLE 2.—Changes in cotton acreages, 1926–1931, expressed in terms of the percentage of all farmers reporting who increased, decreased, or did not change their cotton acreages as compared with those of the preceding year, classified by areas

Area, and years compared	Farmers reporting that, compared with preceding year, their acreage planted to cotton was—						Total farmers report- ing ¹
	Increased		Decreased		Unchanged		
All areas:	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Number</i>	<i>Per cent</i>	<i>Number</i>
1927 and 1926.....	95	14.4	97	14.8	466	70.8	658
1928 and 1927.....	175	23.7	77	10.4	488	65.9	740
1929 and 1928.....	213	26.1	92	11.3	511	62.6	816
1930 and 1929.....	212	25.5	181	21.8	437	52.7	830
1931 and 1930.....	140	16.8	454	54.5	239	28.7	833
Mississippi Delta:							
1927 and 1926.....	31	17.8	42	24.1	101	58.1	174
1928 and 1927.....	70	35.2	10	5.0	119	59.8	199
1929 and 1928.....	71	32.6	17	7.8	130	59.6	218
1930 and 1929.....	64	28.1	30	13.1	134	58.8	228
1931 and 1930.....	57	24.8	119	51.7	54	23.5	230
Piedmont:							
1927 and 1926.....	36	14.0	28	10.9	193	75.1	257
1928 and 1927.....	58	20.9	30	10.8	190	68.3	278
1929 and 1928.....	78	26.0	23	7.7	199	66.3	300
1930 and 1929.....	86	28.4	53	17.5	164	54.1	303
1931 and 1930.....	36	11.9	156	51.5	111	36.6	303
South Atlantic coastal plain:							
1927 and 1926.....	28	12.3	27	11.9	172	75.8	227
1928 and 1927.....	47	17.9	37	14.1	179	68.0	263
1929 and 1928.....	64	21.5	52	17.4	182	61.1	298
1930 and 1929.....	62	20.7	98	32.8	139	46.5	299
1931 and 1930.....	47	15.6	179	59.7	74	24.7	300

¹ Only farmers who were able to give definite acreage figures for each of the 2 years under comparison are included. Totals in this column are considered as 100 per cent when computing the percentages in the other 3 columns.

REASONS FOR ANNUAL CHANGES

The reasons for planting specific acreages to cotton, compared with the acreages that these same farmers planted the preceding year, are given in Table 3. Especially significant in this phase of the study is the large number of farmers giving the reason "Plants same acreage each year." Only farmers who reported planting the same acreage for at least two years or more preceding the year for which this reason is given are included in this group. Otherwise such answers are included under the caption "Same conditions as preceding year." The replies "All land not needed for feed crops," "All suitable land planted to cotton," "(cotton) Only cash crop suited to locality," and for the most part "To keep tenants on the place" indicate for many of the farmers replying a similar stability of cotton acreage. Most of these men were operating their farms on a highly commercialized basis, centering upon a single cash crop—cotton. A similar commercial reason is implied in several answers from the groups reporting increases or decreases in cotton acreage.

TABLE 3.—Reasons given by interviewed farmers for acreages planted to cotton each year compared with the preceding year, 1927-1931 ¹

Action and reason for it	Farmers reporting for—				
	1927	1928	1929	1930	1931
Increased cotton acreage over preceding year:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Bought, leased, or managed more land.....	22	29	52	48	65
Labor cheaper and more plentiful.....	10	20	34	37	23
Cleared some new ground.....	9	17	31	24	15
Better planting weather this spring.....	1	39	9	6	6
First year of farming or growing cotton.....	19	21	11	7	-----
Cotton profitable last year.....	3	15	11	13	-----
Decided to plant as much as possible.....	2	5	13	9	6
Expecting a good price next fall.....	2	-----	11	19	3
Less acreage in other crops.....	6	5	8	9	7
Had to plant more to pay debts.....	-----	1	4	13	6
Other reasons.....	3	7	11	11	5
Do not know.....	18	16	18	16	4
Total.....	95	175	213	212	140
Decreased cotton acreage under preceding year:					
Cotton too cheap last year.....	12	1	9	41	199
Planting more feed and food crops.....	5	6	7	22	107
Operating a smaller farm.....	16	15	17	19	22
Labor scarce or costly.....	10	15	18	23	11
Floods or bad weather at planting time.....	32	4	3	10	2
Boll-weevil situation.....	1	11	10	18	11
Increased acreage in other cash crops.....	6	6	11	22	6
Bad cotton market in prospect.....	-----	-----	3	11	32
Finances restricted.....	-----	-----	1	2	36
Influence of information supplied by Government or cooperative cotton-marketing association.....	-----	-----	-----	1	13
Other reasons.....	5	8	1	3	10
Do not know.....	10	11	12	9	5
Total.....	97	77	92	181	454
Maintained same cotton acreage as preceding year:					
Plants same acreage each year (habit).....	156	161	152	123	64
All land not needed for feed crops.....	64	79	83	69	51
To keep tenants on the place.....	43	37	43	40	18
Cotton profitable last year.....	40	41	52	44	1
All suitable land planted to cotton.....	29	35	45	37	11
As much as farmer and family can tend.....	37	36	35	25	22
Same conditions as preceding year.....	24	25	25	35	26
Balanced acreage among several crops.....	25	29	32	25	12
Only cash crop suited to locality.....	13	13	15	12	8
Needed this acreage to pay debts.....	10	11	12	8	8
Expecting to make money on cotton.....	4	4	5	3	-----
Other reasons.....	2	8	4	5	9
Do not know.....	19	14	8	11	9
Total.....	466	488	511	437	239

¹ Only farmers able to give definite acreage figures for each of the 2 years under comparison are included. This table, classified by areas, is available in mimeographed form. See footnote, p. 7.

Such stability of cotton acreage is a result of various factors, among which are lack of better market outlets for other crops or climatic and soil limitations that discourage attempts to grow other crops. Yet, for a number of farmers interviewed, the enumerators felt that habit played a considerable part in keeping acreages relatively constant. These farmers gave evidence that they had done little in recent years to analyze their systems of farming but were content to continue as they had been doing. For 1930, the proportion of farmers giving the reason "Plants same acreage each year" showed an appreciable decline from the preceding years, and for 1931 the decline in this group was very heavy. Many of these farmers reduced their cotton acreages in one or both of the latter years, because conditions became so acute as to urge or perhaps force drastic changes in farming plans.

For four out of five years for which replies were requested, the most frequently given reason for increasing cotton acreages is that the size of the farm unit had been expanded. This is the only instance in the study in which a type of reply that does not disclose the real reason was given more frequently than any definite reason. From incidental conversation recorded in enumerators' notes, it appears that in 1931, when this reply was given the largest number of times, a considerable number of farms changed hands through foreclosures or inability of former occupants to finance operations another year. In several instances, chiefly in the Delta, creditors made arrangements with operators of adjoining farms to manage these units taken over by default. A few men added to their acreages by outright purchase, several former tenants purchasing land at the low prices prevailing in 1931. In the earlier years, most of the increases occurred because cash tenants moved to larger places and to purchased farms. Although in many instances, probably in a large majority of the total number of recorded cases, these increases did not cause any increase in the total cotton acreages in counties in which these changes occurred, for the operators as individuals they do mean larger acreages planted to cotton.

Lower labor costs normally offer some inducement to expand farm operations, especially if other conditions are likewise favorable. Only for 1931 does the number of replies of this type show a decrease from the number given in the year next preceding.

"Clearing new ground," chiefly a reply from the Delta, reflects at least in part the trend toward greater self-sufficiency in feed crops, for most of this new ground was reported to have been planted to such crops instead of cotton.²

The price for the 1930 cotton crop and other influences deriving from the general economic situation had telling effect upon acreage adjustments in 1931—a much greater effect than had the price for 1926 on changes in 1927. Tax delinquencies, mortgage foreclosures, bank failures, and restrictions of credit were much more prevalent in 1931 to reinforce the effect of cotton price. Some of the difference may be due to inability to recall the earlier years as clearly, although for the interviewed farmers as a whole, the reported cotton acreages follow the general trends rather closely. The concerted drive to get farmers to raise as much as possible of the food and feed crops required on their own farms is reflected in the reasons for reducing cotton acreages in 1931. This reply was especially frequent among Delta farmers whose normally small supplies of feedstuffs were completely exhausted by the severe drought of 1930. In 1931 many of these men planted the acreages which, with average yields of corn, soybeans, cowpeas, and other feeds, would produce a 2-year supply.

As is indicated in Table 3 and as will be noticed in replies to several other questions, retrospect rather than prospect seems to have played the major part in causing a considerable number of farmers to reduce their cotton acreages. The same seems true of many other farmers who made no change in acreage compared with the preceding year. A number of these men seemed to look upon their own past experiences as the only factual basis of judgment in deciding the acreage to

A limited number of additional tables, presenting the same farmer replies but classified in greater detail can be obtained in mimeographed form by writing to the Division of Farm Population and Rural Life, Bureau of Agricultural Economics, U. S. Department of Agriculture.

plant to cotton; while to act upon current market conditions or prospects, regardless of the source or authenticity of the information, appeared a very risky procedure, according to some of them.

INFLUENCE OF 1930 PRICE ON 1931 ACREAGE

Of the 834 interviewed farmers, 457, or 55 per cent, said that the low price of the 1930 cotton crop had some influence upon the acreages they planted to cotton in 1931. The rest replied "No" or "Do not know." (Table 4.) In view of the heavy price decline that took place during the 1930-31 cotton-marketing season, as compared with changes during most of the years since the big price drop in 1920-21, it seems logical to assume that the above affirmative replies are proportionally more frequent than would be true in years when price changes are less extreme. This is borne out in farmer replies to questions regarding methods of deciding upon how much land to plant to cotton in their general systems of farming and regarding the specific factors considered in making year-by-year adjustments within these general farming plans. (Tables 7 and 8.) In replying to both of these questions, a much smaller proportion of the farmers named the price of the preceding cotton crop as the most important consideration.

TABLE 4.—*Farmer replies to questions about the influence that the price for the 1930 cotton crop exerted upon the acreages they planted to cotton in 1931, classified by location in major cotton-producing areas*

Question and reply	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Did the low price of cotton for the 1930 crop have any influence upon acreage you planted in 1931?	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Yes.....	114	167	176	457
No.....	109	133	121	363
Do not know.....	8	3	3	14
Total.....	231	303	300	834
In what way? ¹				
Can not grow cotton profitably at such a price.....	24	95	101	220
Growing more feeds this year, can not buy feeds with cheap cotton.....	54	9	5	68
Diversifying with other cash crops to replace some of the cotton usually grown.....	14	17	29	60
Decided that price and prospect did not warrant increased cotton acreage in 1931.....	10	22	13	45
Cutting production costs to the minimum.....	4	14	11	29
Must plant more cotton to pay debts when price is very low.....	3	7	10	20
Shortage of cash or credit forced a reduction.....	4	3	5	12
Increased acreage, expecting higher price.....	1	-----	2	3
Total.....	114	167	176	457

¹ This question was asked only of farmers replying "Yes" to the preceding question.

Farmers who said that price influenced their decision on acreage were asked to give a reason for their stand. Outside of the Delta more than half replied that the 1930 price affected their 1931 acreage because they were unable to make a profit on the 1930 crop. In the

Delta, the largest number of replies stated that cotton producers can not afford to buy feedstuffs when cotton prices are very low, hence they should plant sufficient feed crops for their farm requirements in such years instead of trying to grow so much cotton and buying most or all of the feedstuffs. But here again, these Delta replies in favor of home-grown feeds may have been colored by the 1930 drought and the abnormally high prices paid that year for purchased feedstuffs.

INFLUENCE OF CREDIT ON 1931 ACREAGE

A little more than four-fifths of the interviewed men stated that farmers in their localities experienced more difficulty than usual in obtaining credit for their 1931 farm operations. (Table 5.) For many this may be a personal testimony. The 1930 drought, the more numerous bank failures, and the cotton-market situation caused the more acute condition in the Delta. A much smaller proportion of piedmont farmers seemed to be dependent on credit.

TABLE 5.—*Farmer replies to questions on the local credit situation in 1931 and its effect on acreage planted to cotton, classified by location in major cotton-producing areas*

Question and reply	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Have farmers of this locality experienced any more difficulty than usual in getting credit for the 1931 crop year?	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Yes.....	217	212	254	683
No.....	11	48	24	83
Do not know.....	3	43	22	68
Total.....	231	303	300	834
If so, to what extent has this influenced acreage planted to cotton in 1931? ¹				
Reduced acreage about 11 to 20 per cent.....	65	45	47	157
Reduced acreage more than 20 per cent.....	48	45	63	156
Did not cause noticeable change in acreage.....	30	50	53	133
Reduced acreage not more than 10 per cent.....	40	15	38	93
Reduced both acreage and fertilizer for cotton.....	4	24	22	50
Caused heavy reduction in fertilizer.....	1	19	24	44
Government loans caused more cotton to be planted in spite of local shortages in credit.....	10	-----	-----	10
Farmers planted increased acreage in spite of limited credit, largely because of cheap labor.....	5	1	1	7
Miscellaneous.....	5	2	-----	7
Do not know to what extent acreage was affected.....	9	11	6	26
Total.....	217	212	254	683

¹ This question was asked only of farmers replying "Yes" to the preceding question.

The farmers' estimates of the effect of such credit restrictions upon 1931 cotton acreages show some interesting differences, especially when compared with acreage changes reported by the interviewed farmers for their own operations. Thus, in the Delta, whereas 113 farmers estimated that credit difficulties caused a reduction of 11 per cent or more in the local cotton acreage and 85 farmers estimated that the effect was less pronounced, the 231 reporting farmers actually reduced their own cotton acreages 5.9 per cent compared with those

of 1930.³ Yet a very large proportion of these men were using credit. In the piedmont 90 farmers estimated reductions of 11 per cent or more, 66 estimated lesser reductions, and the actual percentage reduction effected by the 303 interviewed farmers of the area was 9.1. In the coastal plain, although 63 farmers thought that acreage reductions due to credit difficulties would exceed 20 per cent and 138 estimated the change as less pronounced (91 under 10 per cent), the actual change reported by the 300 interviewed farmers was a reduction of 20 per cent.

Just why these variations occurred is not altogether clear. This is especially true of the low estimates in the coastal plain. The over-estimates in the Delta and possibly in the piedmont may be an expression of what these farmers wished had happened to their neighbors' cotton acreages in comparison with their own (the latter reductions usually being considerably less than the estimates). But the coastal plain discrepancy can not be explained on this basis. Probably at least some of it is due to the fact that farmers who were independent of credit made greater reductions in cotton acreages than did those who used credit in 1931.

INFLUENCE OF LOCAL BUSINESS MEN ON 1931 ACREAGE

An attempt was made to find out the extent to which local bankers and business men had advocated or required reductions in cotton acreages for 1931 compared with 1930. (Table 6.) Two-thirds of the farmer-reported instances in which banks or other financing agencies had tried to use extensions of credit as a means of reducing acreage planted to cotton occurred in the Delta. Many of these instances were reported by borrowers from the Staple Cotton Discount Corp., the finance subsidiary of the Staple Cotton Cooperative Association. This organization, in extending loans to farmers in 1931, required a signed pledge that not over two-thirds of the crop acres owned or operated by the borrower would be planted to cotton. These replies are included under the caption "Urged or required to plant plenty of feeds and live at home." But the apparent intention of this credit agency was more or less wholly nullified in the case of a number of the borrowers who were interviewed. Such men rented additional land from their neighbors (usually acreage not suited to cotton), or bought more land, or cleared cut-over land to provide for the feed acreage stipulated in the loan contracts. Thus they obeyed the letter of their contracts by having one-third of their crop acreages in crops other than cotton, but few of them reduced their acreages in cotton and some were able by this method to increase the acreage planted to cotton.

³ The percentage reductions in cotton acreage for the reporting farmers are computed from data in Table 1. The farmer estimates of effect of credit difficulties upon the 1931 acreage are found in Table 5.

TABLE 6.—*Farmer replies to questions on advice or requirements by local business men and finance agencies concerning cotton acreages in 1931, classified by location in major cotton-producing areas*

Question and reply	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Did the bank or organization that is financing you for 1931 give you any advice or set any requirements for your cotton acreage this year?				
Yes.....	86	19	21	126
No.....	103	187	209	499
Not using credit thus far in 1931.....	39	97	70	206
Do not know.....	3			3
Total.....	231	303	300	834
If so, what? ¹				
Urged or required to plant more feeds; to live at home.....	68	4	4	76
Advised or required to plant as much cotton as possible, at least the usual acreage.....	10	8	7	25
Advised to reduce cotton acreage a little.....	5	5	9	19
Miscellaneous suggestions.....	3	2	1	6
Total.....	86	19	21	126
Have the merchants or bankers of this locality advised farmers to grow more or less cotton recently?				
Advised cotton-acreage reduction.....	166	171	180	517
Advised cotton-acreage expansion.....	1	2	1	4
No advice either way.....	43	89	77	209
Do not know.....	21	41	42	104
Total.....	231	303	300	834

¹ This question was asked only of farmers replying "Yes" to the preceding question.

As far as general advice is concerned, according to these farmer replies, merchants and bankers seem to have been rather active in urging acreage reductions. However, a number of farmers stated that although the business men were publicly recommending a reduced acreage in cotton, a few were quietly urging or requiring among their borrowers, at least the usual cotton acreage as a condition for obtaining a loan. Not a little resentment that business men should resort to such methods was expressed by the farmers. The alleged motive, as reported by these farmers, was to strengthen the business men's own position as creditors, but apparently at the expense of financially independent farmers for whose ears the public utterances were evidently intended.

FACTORS THAT UNDERLIE COTTON-ACREAGE ADJUSTMENTS

The reasons given by interviewed farmers for planting the acreages in cotton that they reported each year for the period 1926-1931, and their replies to questions concerning special influences affecting their production plans in 1931, were presented in the preceding section. But these are only the more immediate or surface factors. Long-time farming plans, bases or indicators upon which year-to-year adjustments are made within the long-time program, sources of economic information and the utilization of such information in planning the year's production program, and many additional factors play an important part in acreage determination.

Each farmer was asked a number of questions in an attempt to get at the less obvious or immediate factors underlying cotton-acreage adjustments. The enumerators made every effort to avoid suggesting possible answers. As a further means of learning these factors, as soon as possible after completing each interview and before beginning another, the enumerator recorded his own deliberate judgment as to the chief basis upon which the farmer just interviewed seemed to be adjusting his cotton acreage over a period of years. Although it would be impossible to give detailed reports of this kind after only a short conversation with a farmer, the enumerators seemed certain that they could give a reasonably accurate indication of each farmer's method.

In addition to being classified by location in major cotton-producing areas (and by counties in a few instances) the farmer replies were classified in several other ways, including tenure, average acreage planted to cotton 1926-1931, schooling of farmers interviewed, and enumerators' judgments concerning the interviewed farmers. Some of the relationships that seem to be indicated in these classifications are also included in this section. The statistical material presented includes only a small part of that obtained in the study. In instances in which the trends are substantially the same in all three areas, classification by area is not included, and the number of separate groups under some of the classifications has been reduced if the trend for two or more adjacent groups is similar. No claim is made that the differences shown in the percentage distributions are due solely or chiefly to the factor under discussion in a particular table. All that is claimed is that the statistics seem to indicate the presence or absence of some degree of influence exerted by the factor under consideration.

LONG-TIME FARMING PLANS

The first question in this series asked the farmer his general method of deciding upon the acreage that he planted to cotton, not in any specific year but as the fundamental basis upon which he tried to operate his farm year after year. The replies are given in Table 7.

TABLE 7.—*Farmer replies to question, "What is your general method of deciding upon the acreage that you plant in cotton?" classified by location in major cotton-producing areas*

General method of deciding upon cotton acreage	Farmers living in—			Total farmers replying
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
	Number	Number	Number	Number
Plant sufficient feed and put remainder in cotton.....	67	87	46	200
Plant all cotton possible as the only cash crop here.....	59	61	25	145
Depends upon availability and cost of help.....	44	41	34	119
Plant in line with price of cotton.....	16	28	49	93
Rotate and diversify with two or more cash crops.....	5	14	47	66
Plant enough cotton to pay off the year's debts.....	14	26	13	53
Adjust acreage to market prospect for cotton.....	6	11	24	41
Plant same acreage annually—habit, custom, etc.....	7	15	16	38
Plant as much as credit or finances permit.....	7	4	11	22
Consider previous or prospective boll-weevil damage.....			14	14
Give tenants enough acreage so they can pay out.....	1	5	6	12
Other replies.....	3	6	5	14
Do not know.....	2	5	10	17
Total.....	231	303	300	834

The most frequently reported basis of farm operations in two of the three areas is that of planting sufficient feed crops to meet farm requirements and then putting the rest of the crop land into cotton. Some farmers who replied in this way were meeting the goals set up in the various "live-at-home" campaigns conducted in the South; but many, especially in the Delta and the piedmont, did not include sufficient home gardens, meat animals, and poultry products to provide for family needs. The large number of replies of this type among Delta farmers seems contrary to current opinion on the subject. It may be in part an evidence of the abnormalities of the 1931 season. Some plantation-type farms included in this survey were raising ample feed for the work stock in all but very abnormal growing seasons, yet few were self-sufficient in products for human consumption, at least in recent years. But from the viewpoint of commercial agriculture, it may be questionable whether these plantations should attempt a program of practically complete self-sufficiency in normal times.

The crop system is exposed most clearly in the second reply, which states that since cotton is the only cash crop in this locality, a farmer should grow as much of it as possible. Few replying thus were making much effort to meet feed and food needs except in times of extremely low cotton prices, and even under such circumstances some were still growing little besides cotton. The cost of labor and its abundance or scarcity were reported as forming a general basis of cotton-acreage determination by a number of all farmers in all areas.

The reply "Plant in line with price of cotton" refers primarily to the price received by the farmer for his last year's crop, although a few who answered in this way probably had in mind the price of cotton at time of planting. This reply was most frequent in the coastal plain where it refers largely to relative prices received by farmers for the preceding season's cotton, tobacco, and, in some instances, peanuts. Ideas of rotation and diversification, including two or more cash crops, are also evident in the replies from this area.

SHORT-TIME CONSIDERATIONS

Farmers were asked to name the three most important factors that they considered when deciding how much land to plant to cotton each year. In contrast to the preceding question (referring to the general cropping plan followed over a period of years) this question was designed to bring out the factors that farmers take into account in adjusting their cotton acreages each year within the general farm plan. The unusual conditions prevailing in the Cotton Belt at the time these farmers were interviewed probably colored their replies to some extent, but the enumerators believed this bias was not large enough to change materially the order of emphasis of at least the most prominent trends indicated in Table 8.

TABLE 8.—*Farmer replies to question, "What would you say are the three most important factors that you take into consideration when deciding upon the acreage that you plant to cotton each year?"*¹

Factor in cotton-acreage determination	Farmers reporting using as—			Total farmers replying
	First factor	Second factor	Third factor	
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Price of preceding cotton crop.....	192	117	28	337
Help available, its cost and ability.....	162	114	37	313
Need for feedstuffs to be raised on farm.....	102	57	19	178
Cotton the best or only cash crop here.....	97	43	13	153
Weather and/or boll-weevil conditions.....	40	51	23	114
Price outlook for coming cotton crop.....	44	32	17	93
Credit or finances available.....	27	38	13	78
Cost of growing cotton v. other crops.....	13	27	29	69
Plant all cotton possible each year.....	27	17	3	47
Rotation and diversification plans.....	23	19	4	46
Plant all cotton operator and family can tend.....	35	8	1	44
Mules and other equipment available.....	11	8	12	31
Always plants same acreage (habit).....	27	3	-----	30
Soil fertility and adaptability.....	14	10	5	29
Other factors.....	9	20	5	34
Do not know.....	11	270	625	906
Total.....	834	834	834	2,502

¹ Except for the "Do not know" answers, each farmer reporting named different factors in each of the three instances. This table, classified by areas, is available in mimeographed form. See footnote, p. 7.

One of the most significant features in Table 8 is the small number of farmers who were able to name first, second, and third factors; practically three-fourths of these men answered, "Do not know," for the third factor and almost one-third gave the same reply for the second factor. The naming of two factors was as far as the great majority could go. The price of the preceding cotton crop was mentioned most frequently as the first or second factor; the supply and cost of labor is not far behind as first or second factor, and is in the lead as a third factor.

Some things mentioned as the first factor used in deciding upon the annual acreage to be planted, practically eliminate the possibility of naming second and third factors. In this class are the following replies: "Cotton is the best or only cash crop available to this locality," "Plants as much cotton as possible," "Plants as much cotton as the operator and his own family can tend," and "Plants the same acreage annually." Farmers who gave these as second or third factors, usually gave as first or second factors statements that stressed the fact that 1931 was an exceptional year in regard to the price situation, boll weevil, need for home-grown feed stuffs (in the Delta especially), and available credit or finances.

Interviewed farmers in the three areas give different degrees of emphasis to some of these factors. The available labor supply and its cost are a frequently-used factor in the Delta, whereas the price of the preceding cotton crop is reported much more frequently in the coastal plain. In the piedmont these two factors are of about equal importance. The northward migration of negroes has been most pronounced in the Delta, thus bringing the labor problem to the front in this area. In the piedmont, local cotton mills compete with farms for labor to some extent; this is reflected in replies from this area. In the coastal plain, however, opportunity for alternative employment does not seem to have been so much of a factor.

The price of cotton as a major factor was mentioned most frequently in the coastal plain and was also the most frequently-mentioned factor in the piedmont. It received somewhat less emphasis in the Delta largely because so many farmers in this area believed that cotton is the sole money crop they can grow. In situations of this kind, a less pronounced response to price changes is naturally expected. The need for feed stuffs as a factor influencing cotton acreages was stressed in the Delta more than would be true in normal years, for Delta farmers in 1931 were making a concerted attempt to overcome the feed deficits created by the 1930 drought. In the coastal plain, at least in the counties surveyed, many farmers seem to accept the growing of one's own feed as a general-production principle rather than as a matter to be decided upon annually.

ENUMERATORS' JUDGMENTS REGARDING UNDERLYING FARMER REASONS

The enumerators' judgments of the bases used by the interviewed farmers in adjusting their cotton acreages over a period of years are given in Table 9. Delta and piedmont farmers seem to be a little more prone than others to adopt and maintain farm-production policies that involve raising needed supplies of feed and putting the remainder of the available land into cotton each year. In the coastal plain, the farmers appear to respond somewhat more readily to changes in the cotton-market situation. Likewise, a larger number of farmers in this area have definite systems of crop rotation and diversification, almost invariably including abundant feedstuffs. Some of these rotation and diversification plans are rather flexible, especially in regard to shifts among their major cash crops—cotton, tobacco, and peanuts. This shifting is usually in response to market conditions and prospects for the cash crops and to this extent should be viewed as an addition to the answers in the coastal plain that stress only market situations.

TABLE 9.—*Bases of cotton-acreage adjustments used by interviewed farmers as estimated by the enumerators, classified by location of the farmers in major cotton-producing areas*

Basis of cotton-acreage adjustment	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Cotton-market situations dominant:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Price of last year's cotton crop.....	26	54	68	148
Prospective price next fall.....	28	38	58	134
Advice of local business men.....	9	-----	5	14
Course opposite what they think most farmers will take.....	1	-----	5	6
Total.....	74	92	136	302
Farm-production plans dominant:				
Sufficient feeds and remainder of land in cotton.....	86	108	37	231
Diversification and rotation plan.....	4	15	42	61
Total.....	90	123	79	292
More or less haphazard, without regard to markets or other factors.....	67	88	85	240
Check total farmers interviewed.....	231	303	300	834

Almost exactly the same proportion of interviewed farmers in each area were classified as being more or less haphazard in their methods of deciding how much cotton to plant. Few in this group provide sufficient feed crops to meet the needs of their own farms; a number plant just as much cotton each year as they can finance and tend; some plant the same acreage annually, apparently disregarding all other considerations; others plant regularly all the suitable land they control by either ownership or lease. Only a small number raise other cash crops that produce an income equal to any significant proportion of that derived from cotton raising.

TENURE

Generally speaking, owners did more in reducing acreages planted to cotton in 1931 compared with acreages planted in 1930 than did tenants or managers. (Table 10.) The Delta is an exception because a number of interviewed owners added more acreage to their enterprises in 1931 through purchase or lease or, in a few cases, assumed management of additional lands. Most of these changes were due to foreclosures or other distress situations on adjoining farms. Almost invariably these lands in 1931 contained a reduced acreage planted to cotton compared with that planted in 1930, although for the person reporting, the change represented an increase.

TABLE 10.—*Adjustments in cotton acreage in 1931 compared with that in 1930, enumerators' judgments concerning bases used by farmers in making cotton-acreage adjustments, and extent to which farmers seemed informed about current cotton-market conditions; classified by tenure*

Item	Number in each tenure group at time of interview				Percentage in each tenure group at time of interview			
	Own-ers	Ten-ants	Man-agers	Total	Own-ers	Ten-ants	Man-agers	Aver-age
Area and acreage planted to cotton in 1931 compared with 1930:¹								
Mississippi Delta—								
Increased acreage over 1930.....	41	10	6	57	25.5	23.2	23.1	24.8
Decreased acreage below 1930.....	82	23	14	119	50.9	53.6	53.8	51.7
Same acreage as 1930.....	38	10	6	54	23.6	23.2	23.1	23.5
Total.....	161	43	26	230	100.0	100.0	100.0	100.0
Piedmont—								
Increased acreage over 1930.....	22	13	1	36	8.8	25.5	33.3	11.9
Decreased acreage below 1930.....	134	20	2	156	53.8	39.2	66.7	51.5
Same acreage as 1930.....	93	18	—	111	37.4	35.3	0	36.6
Total.....	249	51	3	303	100.0	100.0	100.0	100.0
South Atlantic coastal plain—								
Increased acreage over 1930.....	33	11	3	47	13.7	23.9	23.1	15.6
Decreased acreage below 1930.....	147	22	10	179	61.0	47.8	76.9	59.7
Same acreage as 1930.....	61	13	—	74	25.3	28.3	0	24.7
Total.....	241	46	13	300	100.0	100.0	100.0	100.0
Enumerators' judgments concerning bases of cotton-acreage adjustment used by farmers:								
Cotton-market situations dominant—								
Price of last year's cotton.....	110	33	5	148	16.9	23.6	11.6	17.7
Prospective price next fall.....	109	16	9	134	16.7	11.4	20.9	16.1
Advice of local business men.....	10	3	1	14	1.5	2.1	2.3	1.7
Course opposite what they think most others will take.....	4	2	—	6	.6	1.4	0	.7
Subtotal.....	233	54	15	302	35.7	38.5	34.8	36.2

¹ Only farmers who were able to give definite acreage figures for both years under comparison are included.

TABLE 10.—*Adjustments in cotton acreage in 1931 compared with that in 1930, enumerators' judgments concerning bases used by farmers in making cotton-acreage adjustments, and extent to which farmers seemed informed about current cotton-market conditions; classified by tenure—Continued*

Item	Number in each tenure group at time of interview				Percentage in each tenure group at time of interview			
	Own-ers	Ten-ants	Man-agers	Total	Own-ers	Ten-ants	Man-agers	Aver-age
Enumerators' judgments concerning bases of cotton-acreage adjustment used by farmers—Continued.								
Farm-production plans dominant—								
Sufficient feeds and remainder in cotton.....	182	31	18	231	28.0	22.2	41.9	27.7
Diversification and rotation plan.....	52	7	2	61	8.0	5.0	4.7	7.3
Subtotal.....	234	38	20	292	36.0	27.2	46.6	35.0
More or less haphazard, without regard to markets or other factors.....	184	48	8	240	28.3	34.3	18.6	28.8
Total.....	651	140	43	834	100.0	100.0	100.0	100.0
Extent to which farmers seemed informed concerning current cotton-market conditions, as estimated by enumerators:								
Little or no information.....	141	45	6	192	21.7	32.2	13.9	23.0
Poorly informed.....	228	61	19	308	35.0	43.6	44.2	36.9
Fairly well informed.....	232	31	11	274	35.6	22.1	25.6	32.9
Very well informed.....	50	3	7	60	7.7	2.1	16.3	7.2
Total.....	651	140	43	834	100.0	100.0	100.0	100.0

Owners and managers were judged by the enumerators to be a little more likely to operate their farms so as to meet their own feed needs than were tenants. Tenants appeared more prone to base their cotton-acreage adjustments upon the price of the preceding year's cotton crop or to take no account of cotton-market factors.

In the degree to which the interviewed farmers seemed informed concerning current cotton-market conditions, managers made the best showing and tenants by far the poorest, with owners in an intermediate position, but approaching managers much more closely than tenants.

SIZE OF FARM BUSINESS

When the farmers are classified on the basis of the average acreage planted to cotton for the 6-year period 1926-1931, the proportion who increased their 1931 acreages over those of the preceding year is decidedly greater among farmers whose cotton acreages are comparatively small. Among men planting on a more extensive scale a larger proportion decreased their acreage. (Table 11.)

TABLE 11.—*Adjustments in cotton acreage in 1931 compared with 1930, enumerators' judgments concerning bases used by farmers in making cotton-acreage adjustments, and extent to which farmers seemed informed about current cotton-market conditions; classified by average annual acreage planted to cotton 1926-1931*¹

Item	Percentage of farmers whose average annual acreage planted to cotton 1926-1931 was—						Average (per cent)
	Under 20 acres	20 to 49 acres	50 to 99 acres	100 to 299 acres	300 to 499 acres	500 acres or more	
Area and acreage planted to cotton in 1931 compared with 1930: ²							
Mississippi Delta—							
Increased acreage over 1930.....	50.0	66.7	26.3	25.9	11.8	25.2	24.8
Decreased acreage below 1930.....	50.0	33.3	52.6	44.5	50.0	56.5	51.7
Same acreage as 1930.....	0	0	21.1	29.6	38.2	18.3	23.5
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Piedmont—							
Increased acreage over 1930.....	15.9	11.6	7.8	9.5	0	0	11.9
Decreased acreage below 1930.....	52.3	48.4	45.1	61.9	66.7	50.0	51.5
Same acreage as 1930.....	31.8	40.0	47.1	28.6	33.3	50.0	36.6
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
South Atlantic coastal plain—							
Increased acreage over 1930.....	20.8	21.2	15.3	9.9	0	0	15.6
Decreased acreage below 1930.....	45.9	56.1	62.5	70.4	64.3	100.0	59.7
Same acreage as 1930.....	33.3	22.7	22.2	19.7	35.7	0	24.7
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Enumerators' judgments concerning bases of cotton-acreage adjustment used by farmers:							
Cotton-market situations dominant—							
Price of last year's cotton.....	28.2	18.6	16.2	14.4	9.1	11.5	17.7
Prospective price next fall.....	6.1	10.8	23.9	21.0	23.6	18.8	16.1
Advice of local business men.....	0	.6	.7	1.2	7.3	4.9	1.7
Course opposite what they think most others will take.....	0	.6	.7	1.8	0	.8	.7
Subtotal.....	34.3	30.6	41.5	38.4	40.0	36.0	36.2
Farm-production plans dominant—							
Sufficient feeds and remainder in cotton.....	16.0	34.7	23.2	26.3	41.8	36.1	27.7
Diversification and rotation plan.....	8.3	9.6	10.6	7.8	3.6	0	7.3
Subtotal.....	24.3	44.3	33.8	34.1	45.4	36.1	35.0
More or less haphazard, without regard to markets or other factors.....	41.4	25.1	24.7	27.5	14.6	27.9	28.8
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Extent to which farmers seemed informed concerning current cotton-market conditions, as estimated by enumerators:							
Little or no information.....	47.5	24.6	24.7	10.8	10.9	4.9	23.0
Poorly informed.....	35.9	46.7	38.7	35.3	29.1	28.7	36.9
Fairly well informed.....	16.0	27.5	29.6	43.1	43.6	50.0	32.9
Very well informed.....	.6	1.2	7.0	10.8	16.4	16.4	7.2
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ The average acreage for each interviewed farmer is for the number of years for which he reported, except that in 2 Delta counties, where 1927 floods prevented some farmers from carrying out their usual plans, this abnormal year was excluded in preparing the average. A very large majority reported for the entire period.

² Only farmers able to give definite acreage figures for both years under comparison are included.

Some of this greater decrease in cotton acreage among the farmers operating on a larger scale may have been due to the financial limitations that are likely to bear down more heavily upon this group than upon the men operating family-size farms. However, the larger operators were estimated by the enumerators to be, on the whole, much better informed about the cotton markets than were the men who grow only small acreages of cotton, perhaps indicating some relationship between acreage and knowledge of the market. There is but little difference between the various groups under this classification in the enumerators' judgments of the number of farmers having defi-

nite plans to grow their own feeds or to diversify their farm operations. On the other hand, the enumerators estimated that a larger proportion of farmers planting small acreages of cotton based their acreage adjustments on the price of the preceding crop whereas more of the larger scale producers considered the prospective prices next fall in making acreage adjustments.

SCHOOLING OF FARM OPERATORS

Differences between interviewed farmers classified according to their schooling were more marked in many respects than in most of the other classifications. In some instances these differences were so large as nearly to obliterate what otherwise appeared to be differences between areas or between some of the other factors. In consequence, the classification by schooling was carried through many of the tabulations, but only a few of the resulting tables can be given here.

Average acreages planted to cotton each year from 1926 to 1931 by the farmers reporting, classified by schooling of the farmers and by area are given in Table 12. The proportional or relative acreage cut made by the farmers of longer schooling is much greater in the coastal plain and a little greater in the Delta than is the cut made by farmers of shorter schooling. In the piedmont the trend is reversed, the relatively greater cuts being made by farmers with the least schooling. On the other hand, over the 5-year period, prior to 1931, the farmers who had had the most schooling made relatively smaller increases in cotton acreages than did those having the least schooling; and in both the Delta and the coastal plain the average 1926 acreage for farmers of longest schooling has not been exceeded since that year, while for farmers of least schooling the 1926 averages have been exceeded in one or more years.

TABLE 12.—Average annual acreage planted to cotton from 1926 to 1931 as reported by farmers living in each major cotton-producing area surveyed, classified by the schooling of the farmers ¹

Area and crop year	Farmers whose schooling was—			Average
	Less than common school	Through common school	High school or more	
Mississippi Delta:	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>
1926.....	714.0	459.7	1,105.8	913.8
1927.....	661.5	399.5	922.3	779.5
1928.....	662.9	434.4	952.8	807.6
1929.....	681.9	456.9	969.8	823.2
1930.....	736.2	491.9	979.9	844.6
1931.....	695.4	484.5	913.2	794.9
Average.....	692.2	456.3	968.6	824.5
Piedmont:				
1926.....	38.5	76.8	90.5	63.3
1927.....	37.2	76.1	87.9	62.3
1928.....	38.1	77.2	101.3	65.7
1929.....	41.2	80.7	100.1	67.9
1930.....	43.9	81.6	101.4	69.8
1931.....	38.1	75.3	93.7	63.4
Average.....	39.6	78.0	96.1	65.5
South Atlantic coastal plain:				
1926.....	57.9	109.4	178.6	114.9
1927.....	56.1	100.9	167.2	107.9
1928.....	59.5	95.0	159.9	103.8
1929.....	62.1	99.1	157.6	105.0
1930.....	64.1	94.6	152.3	102.3
1931.....	55.7	78.2	114.6	81.8
Average.....	59.4	95.4	153.9	101.9

¹ Averages were obtained by dividing the total number of acres by the number of farmers reporting in each instance.

A considerably larger proportion of the farmers having least schooling was judged by the enumerators to be basing cotton-acreage adjustments upon the price of the preceding cotton crop than was true among farmers of greatest schooling, whereas an opposite trend is indicated for farmers who seemed to adjust their acreages in line with market prospects. The classification by schooling for the enumerators' estimates of the extent to which the interviewed farmers seemed informed about current cotton-marketing conditions is especially striking. (Table 13.)

TABLE 13.—Adjustments in cotton acreages in 1931 compared with 1930, enumerators' judgments concerning bases used by farmers in making cotton-acreage adjustments, and extent to which farmers seemed informed on current cotton-market conditions; classified by the schooling of the farmers

Item	Number of farmers whose schooling was—			All farmers interviewed	Percentage of farmers whose schooling was—			Average (per cent)
	Less than common school	Through common school	High school or more		Less than common school	Through common school	High school or more	
Area and acreage planted to cotton in 1931 compared with 1930: ¹								
Mississippi Delta—								
Increased acreage over 1930.....	7	13	37	57	24.1	26.5	24.4	24.8
Decreased acreage below 1930.....	10	22	87	119	34.5	44.9	57.2	51.7
Same acreage as 1930.....	12	14	28	54	41.4	28.6	18.4	23.5
Total.....	29	49	152	230	100.0	100.0	100.0	100.0
Piedmont—								
Increased acreage over 1930.....	18	8	10	36	13.6	8.0	14.1	11.9
Decreased acreage below 1930.....	68	53	35	156	51.5	53.0	49.3	51.5
Same acreage as 1930.....	46	39	26	111	34.9	39.0	36.6	36.6
Total.....	132	100	71	303	100.0	100.0	100.0	100.0
South Atlantic coastal plain—								
Increased acreage over 1930.....	17	19	11	47	15.2	21.4	11.1	15.6
Decreased acreage below 1930.....	57	52	70	179	50.9	58.4	70.7	59.7
Same acreage as 1930.....	38	18	18	74	33.9	20.2	18.2	24.7
Total.....	112	89	99	300	100.0	100.0	100.0	100.0
Enumerators' judgments concerning bases of cotton-acreage adjustment used by farmers:								
Cotton-market situations dominant—								
Price of last year's cotton.....	59	43	46	148	21.6	18.1	14.2	17.7
Prospective price next fall.....	18	36	80	134	6.6	15.1	24.8	16.1
Advice of local business men.....	5	4	5	14	1.8	1.7	1.6	1.7
Course opposite what they think most others will take.....	3	1	2	6	1.1	.4	.6	.7
Subtotal.....	85	84	133	302	31.1	35.3	41.2	36.2
Farm production plans dominant—								
Sufficient feeds and remainder in cotton.....	66	63	102	231	24.2	26.5	31.6	27.7
Diversification and rotation plan.....	21	16	24	61	7.7	6.7	7.4	7.3
Subtotal.....	87	79	126	292	31.9	33.2	39.0	35.0
More or less haphazard, without regard to markets or other factors.....	101	75	64	240	37.0	31.5	19.8	28.8
Total.....	273	238	323	834	100.0	100.0	100.0	100.0
Extent to which farmers seemed informed concerning current cotton-market conditions as estimated by enumerators:								
Little or no information.....	106	51	35	192	38.8	21.4	10.8	23.0
Poorly informed.....	114	102	92	308	41.8	42.9	28.5	36.9
Fairly well informed.....	51	80	143	274	18.7	33.6	44.3	32.9
Very well informed.....	2	5	53	60	.7	2.1	16.4	7.2
Total.....	273	238	323	834	100.0	100.0	100.0	100.0

¹ Only farmers who were able to give definite acreage figures for both years under consideration are included.

The proportion of interviewed farmers who decreased the acreages planted to cotton in 1931 compared with 1930 is much larger in the Delta and the coastal plain among farmers of longest schooling. (Table 13.) The proportion who increased their acreages this same year shows little difference when classified by schooling; in the Delta, this was largely because a number of farmers, most of them having more-than-average schooling, took over additional land.

The enumerators' estimates on the amount of economic information on cotton possessed by farmers correspond rather closely to the farmers' own replies to questions about reading such information in newspapers, periodicals, bulletins, etc., when those replies are classified according to the schooling of the farmers. (Table 14.) The limited way in which these farmers seem to use this information in their production plans is illustrated in this table. Here the better-schooled farmers at least give more credit to such information as a determining influence in formulating their plans.

TABLE 14.—*Farmer replies to questions about reading reports on cotton production, market conditions, prices, etc., and using this information in deciding how much cotton to plant in 1931, classified by schooling of the farmers*

Question and reply	Number of farmers whose schooling was—			All farmers interviewed	Percentage of farmers whose schooling was—			Average (per cent)
	Less than common school	Through common school	High school or more		Less than common school	Through common school	High school or more	
Do you read any reports on cotton production, market conditions, prices, and so on?								
Yes.....	197	195	302	694	72.1	81.9	93.5	83.2
No.....	75	41	21	137	27.5	17.2	6.5	16.4
Do not know.....	1	2	---	3	.4	.9	0	.4
Total.....	273	238	323	834	100.0	100.0	100.0	100.0
If so, in what periodicals, newspapers, or publications chiefly? ¹								
Daily newspapers.....	131	123	186	440	66.5	63.1	61.6	63.4
Farm periodicals and journals.....	49	50	49	148	24.9	25.6	16.2	21.3
Government bulletins, reports, etc.....	11	13	33	57	5.6	6.7	10.9	8.2
Cooperative cotton-marketing association papers.....	3	5	17	25	1.5	2.6	5.7	3.6
Cotton-trade journals, factors' letters, etc.....	2	4	10	16	1.0	2.0	3.3	2.3
Miscellaneous.....	1	---	7	8	.5	0	2.3	1.2
Total.....	197	195	302	694	100.0	100.0	100.0	100.0
How did you use this information in planning your cotton production in 1931?								
Reduced acreage planted to cotton.....	18	47	70	135	9.2	24.1	23.2	19.5
Gave a better idea of what to expect in the fall.....	---	2	12	14	0	1.0	4.0	2.0
Decided not to increase cotton acreage.....	2	2	5	9	1.0	1.0	1.6	1.3
Planted more feed crops.....	1	2	5	8	.5	1.0	1.6	1.2
Reduced or omitted fertilizer for cotton.....	---	2	1	3	0	1.0	.3	.4
Miscellaneous.....	1	1	1	3	.5	.5	.3	.4
Did not use this information.....	175	139	208	522	88.8	71.4	69.0	75.2
Total.....	197	195	302	694	100.0	100.0	100.0	100.0

¹ These questions were asked only of farmers replying "Yes" to the first question.

Farmer replies to the question about their general method of deciding how much land to plant to cotton over a period of years, when classified by the schooling of the farmers, show some interesting differences. (Table 15.) The better schooled farmers emphasized

the planting of ample feed crops to meet farm needs. They also stressed the idea of adjusting acreages in line with market prospects. Relatively more farmers of limited schooling said that since cotton is the only cash crop suited to their localities, it should occupy as much of the available land as possible in their systems of farming. Others of this group thought that one must plant enough cotton annually to pay his debts—hence the lower the price of cotton drops, the greater the acreage he plants to cotton.

TABLE 15.—*Farmer replies to question, "What is your general method of deciding upon the acreage that you plant to cotton?" classified by schooling of the farmers*

General method of deciding upon cotton acreage	Number of farmers whose schooling was—			All farmers interviewed	Percentage of farmers whose schooling was—			Average (per cent)
	Less than common school	Through common school	High school or more		Less than common school	Through common school	High school or more	
Plant sufficient feed and put remainder of land in cotton.....	52	55	93	200	19.0	23.1	28.8	24.0
Plant all cotton possible as the only cash crop here.....	52	45	48	145	19.0	18.9	14.9	17.4
Depends upon available help and its cost.....	32	32	55	119	11.7	13.4	17.0	14.3
Plant in line with price of cotton.....	37	22	34	93	13.6	9.2	10.5	11.1
Rotate and diversify with two or more cash crops.....	18	18	30	66	6.6	7.6	9.3	7.9
Plant enough cotton to pay off the year's debts.....	31	13	9	53	11.4	5.5	2.8	6.4
Adjust acreage in line with market prospects.....	5	14	22	41	1.8	5.9	6.8	4.9
Plant same acreage annually (habit).....	15	12	11	38	5.5	5.0	3.4	4.6
Plant as much as credit or finances will permit.....	6	9	7	22	2.2	3.8	2.2	2.6
Consider previous or prospective boll-weevil damage.....	6	2	6	14	2.2	.8	1.9	1.7
Give tenants enough acreage so they can pay out.....	2	9	1	12	.7	3.8	.3	1.4
Other replies.....	7	3	4	14	2.6	1.3	1.2	1.7
Do not know.....	10	4	3	17	3.7	1.7	.9	2.0
Total.....	273	238	323	834	100.0	100.0	100.0	100.0

Only 32.6 per cent of the 273 farmers with less than a common-school education thought favorably of the advice of their county agricultural agents on the most suitable crops and livestock enterprises for their localities; the rest either knew absolutely nothing about what these agents had advised, or disagreed with the advice. Among the 323 farmers who reported completing at least a 4-year high-school course, 66.9 per cent agreed with the county agents and the rest did not know, or disagreed.

The better-schooled farmers were somewhat more optimistic about the extent to which alternative crops might be grown to substitute for part of the cotton, and a larger proportion of this group was relying upon such crops as sources of cash income than was true among the farmers with least schooling.

The foregoing are not all the differences noted between farmers grouped by schooling, but they indicate the type of differences that seem to exist among these men when so classified. Other factors may have increased or decreased the influence of schooling. It is not intended to state that schooling accounts for all the differences indicated in those tables in which it is used as a basis of classification, but that schooling is an important factor seems evident.

ADJUSTMENTS IN FERTILIZER BOUGHT FOR COTTON

Use of fertilizer is an indicator of economic adjustments in the Cotton Belt. In this survey, each interviewed farmer was asked how much money he had spent for fertilizer to use on his cotton crop each year from 1928 to 1931. The averages of the replies are given in Table 16. Farmers who said they had not yet bought all the fertilizer they expected to buy in 1931, are omitted. A few who are included for 1931 may have changed their minds and bought additional fertilizer for side dressing after reporting. But owing to continued low cotton prices, restricted finances, and an unusually favorable growing season, these additional purchases were probably so small as to have little effect on the data presented. In 1931, the prices for fertilizer were somewhat lower than they were in the three years just preceding, but according to local farmer opinion this decline did not exceed 10 to 15 per cent. Some farmers reported using lower-analysis fertilizer in 1931 as a means of reducing expenses.

TABLE 16.—Average amount spent for fertilizer for cotton per farmer reporting and per acre of cotton planted, 1928-1931 ¹

Year	Average expenditure for fertilizer in—					
	Mississippi Delta		Piedmont		South Atlantic coastal plain	
	Per farmer reporting	Per acre of cotton	Per farmer reporting	Per acre of cotton	Per farmer reporting	Per acre of cotton
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1928.....	1,069.84	1.39	487.73	7.21	997.72	8.15
1929.....	1,302.03	1.68	493.03	7.07	914.47	8.26
1930.....	1,696.83	2.17	513.74	7.26	869.21	8.07
1931.....	547.37	.73	337.48	5.02	538.40	6.07
Average.....	1,151.08	1.50	456.79	6.63	815.42	7.69

¹ All averages are computed by dividing the total amounts spent by the number of farmers reporting or the number of acres planted to cotton.

The percentage of Delta farmers using no fertilizer on their cotton crops nearly triples in 1931 compared with the preceding year, but this change is much less in the other areas. (Table 17.) Most of the farmers in the piedmont and coastal plain said it was useless to try to grow cotton without some fertilizer. So, as indicated in the preceding table, they made some reduction in the amounts spent for fertilizer but still used considerable quantities in 1931.

TABLE 17.—Number and percentage of interviewed farmers who reported using no fertilizer on cotton, 1928-1931, classified by location in major cotton-producing areas

Area	Farmers reporting using no fertilizer in—								Number of farmers interviewed ¹
	1928		1929		1930		1931		
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	
Mississippi Delta.....	98	42.4	77	33.3	54	23.4	149	64.5	231
Piedmont.....		0	2	.7	5	1.7	9	3.0	303
South Atlantic coastal plain.....	2	.7	2	.7	3	1.0	5	1.7	300

¹ Each number in this column is considered as 100 per cent when computing the percentages in the other columns.

SOURCES AND APPLICATION OF ECONOMIC INFORMATION ABOUT COTTON

Each interviewed farmer was asked several questions about his reading and using any periodical or newspaper reports that contain economic information about cotton. The replies are summarized in Table 18. A very large majority of all farmers said they read such reports from time to time. The three areas are not significantly different in this respect, but the proportion of negative replies was a little the highest in the piedmont and was lowest in the Delta.

TABLE 18.—*Farmer replies to questions on their reading of reports about cotton production, market conditions, prices, etc., and enumerators' estimates of extent to which these farmers seemed informed on current cotton-market conditions, classified by location of the farmers in major cotton-producing areas*

Question and reply, and enumerators' estimates	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Do you read any reports on cotton production, market conditions, prices, and so on?	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Yes.....	211	232	251	694
No.....	19	69	49	137
Do not know.....	1	2	-----	3
Total.....	231	303	300	834
If so, in what periodicals, newspapers, or publications chiefly? ¹				
Daily newspapers.....	149	127	164	440
Farm periodicals and journals.....	17	71	60	148
Government bulletins, reports, etc.....	16	23	18	57
Cooperative cotton-marketing association paper.....	16	2	7	25
Cotton-trade journals, factors' letters, etc.....	6	8	2	16
Miscellaneous.....	7	1	-----	8
Total.....	211	232	251	694
Extent to which farmers seemed informed concerning current cotton-market conditions, as estimated by enumerators:				
Little or no information.....	23	89	80	192
Poorly informed.....	81	125	102	308
Fairly well informed.....	102	81	91	274
Very well informed.....	25	8	27	60
Total.....	231	303	300	834

¹ This question was asked only of persons replying "Yes" to the first question.

Daily newspapers were by far the most frequently reported source of information of this kind, and farm periodicals were mentioned by many farmers, except in the Delta. Government bulletins and reports were named by 57 of the farmers interviewed. Much of the matter appearing in the more frequently mentioned sources had its origin in Government-collected data but this was recognized by very few farmers.

The enumerators were asked to give an estimate of the degree to which each interviewed farmer seemed to be informed on current cotton-market conditions. (Table 18.) These estimates are open to the criticism that they were made on the basis of a short acquaintance. But through incidental conversation as well as when answering definite questions, many farmers gave unmistakable evidence of their knowledge or lack of knowledge about the cotton markets. There-

fore, it is believed that the enumerators' estimates closely approximate the actual state of affairs.

Of the 834 interviewed farmers, 40 per cent were classed by the enumerators as being fairly well or very well informed about the current cotton markets. In the Delta, a little more than half the farmers were placed in these two groups of the better informed, whereas in the piedmont only 29 per cent were so placed. Less than 10 per cent of the Delta farmers were considered to possess very little or no information of this kind, whereas almost one-third of the piedmont and nearly as many coastal-plain farmers were rated in this group. Thus, in spite of the high proportion of farmers who reported reading more or less current information on markets and other economic cotton questions, many do not seem to have grasped the significance of what they read and in a few instances ignorance of these matters was almost complete.

The effect upon their 1931 farming plans of reading economic information about cotton, as reported by the farmers, is indicated in Table 19. Nearly three-fourths of these men said they made no specific use of it. The reductions in cotton acreage planted in 1931 compared with that planted in 1930, were the applications of this information reported by a very large majority of the men who said they used the information. Other forms of application were reported in only a small number of replies in each instance.

TABLE 19.—*Specific results of reading information on cotton production, markets, prices, etc., in making farm plans for 1931, as reported by interviewed farmers classified by their location in major cotton-producing areas*

Result of reading information	Farmers living in—			Total farmers reporting
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
	Number	Number	Number	Number
Reduced acreage planted to cotton.....	46	43	46	135
Had a better idea of what to expect next fall.....	5	3	6	14
Decided not to increase cotton acreage this year.....		8	1	9
Planted more feed crops.....	6	1	1	8
Reduced or omitted fertilizer for cotton.....	1	1	1	3
Miscellaneous.....	1	1	1	3
Total.....	59	57	56	172
Read such information, but unable to report specific use of it in 1931.....	152	175	195	522

It would probably be unfair both to the sources of information and to the farmers themselves to assume on the basis of this evidence that so large a proportion of the farmers disregard the economic information they read. Instead, it seemed to the enumerators that many farmers merely added the general impressions created by reading, to their other ideas on the cotton situation. In making plans for 1931, such farmers used what they assumed was their own fund of knowledge, thereby failing to give credit to specific sources of information that had been drawn upon in assimilating ideas.

Farmer replies to the question of information sources showed that almost none of those reporting specific uses of such information

increased their 1931 acreages appreciably. This would seem to indicate that these farmers concluded that the information they had read made increased acreages for 1931 appear more than usually hazardous.

OUTLOOK INFORMATION AND THE COTTON GROWER

During each interview, the enumerator tried to find out whether the farmer had ever heard of the outlook information prepared and distributed by Federal and State departments of agriculture and extension services. If the enumerator felt that the farmer knew what this work was, he then asked the farmer what he thought about it and what use he made of the information. It was realized that many farmers would not recognize the outlook work by its official title and that most of them would be unable to distinguish the specific contributions made by the cooperating agencies.

The farmers received this outlook information through various channels: Local and other outlook meetings held by county agricultural agents or other extension men; published reports issued by Federal and State agencies; radio broadcasts on the subject; and conversation with county agricultural agents, local business men, or neighbors who had obtained such information from other sources. Some farmers possessed much more complete knowledge than others of outlook data relating to trends in demand and supply, in prices, in production of cotton both domestic and foreign, and similar data for other important crops in their localities. A few gave the enumerators the impression that they had misinterpreted the data and others who had heard outlook information through channels somewhat removed from official sources showed that they had been erroneously informed. Furthermore, official agencies were credited by a few farmers with making certain forecasts or predictions that had come to them when, in fact, these were evidently made by persons not connected with Government agencies.

Opinions regarding the value of outlook information are given in Table 20. These opinions were sought only from farmers who evidenced some knowledge of this service. A little more than half of the latter group gave favorable replies; one-third gave unfavorable replies; the remainder were noncommittal. According to this summary of farmer opinion, the outlook information was most favorably received in the Delta and least favorably regarded in the coastal plain.

TABLE 20.—*Extent of acquaintance, among interviewed farmers, with outlook information on cotton, prepared and distributed by Federal and State departments of agriculture and extension services, and the opinions of farmers on the value of this service, grouped by location in major cotton-producing areas*

Acquaintance with outlook information and opinion about it	Farmers living in—			Total farmers reporting
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Acquaintance with outlook information:	Number	Number	Number	Number
Knows something about the service.....	181	186	199	566
Has never heard of outlook information.....	50	117	101	268
Total.....	231	303	300	834
Opinions on value of outlook information to cotton producers: ¹				
Favorable—				
Information is usually helpful.....	73	60	50	183
Information is very helpful.....	18	17	18	53
Would be more helpful if farmers heeded recommendations more fully.....	5	17	27	49
Gives farmers some good information.....	13	16	8	37
Miscellaneous.....		1	1	2
Total.....	109	111	104	324
Unfavorable—				
Information is of no value to farmers.....	35	34	35	104
Does farmers more harm than good, usually by depressing the market price.....	6	14	26	46
Too inaccurate; too much guesswork.....	5	6	6	17
Sometimes helpful, sometimes harmful.....	2	1	4	7
Miscellaneous.....	6	5	5	16
Total.....	54	60	76	190
Unable to decide whether outlook information is helpful or harmful to farmers.....	18	15	19	52

¹ This information was sought only from farmers giving evidence of acquaintance with outlook information.

The reasons given to substantiate favorable replies are not very specific. They imply chiefly that outlook information is helpful to those farmers who really use it in planning their farm operations. Some of the reasons are more enthusiastic in tone than others, yet all reveal favorable responses.

The most frequently-mentioned reason for unfavorable responses came chiefly from farmers who seemed to manage their farms principally in the light of their own past experiences and with but little attention to market factors and trends. Two types of thinking are involved in the second most frequently mentioned reason. Some farmers who gave this reply stated further that so many farmers assumed most of their neighbors would adjust in line with the outlook, that they decided to do the opposite, causing thereby a net change in acreage just the reverse of what careful study of the outlook reports would suggest. The other type of thinking was to the effect that in some rather mysterious way the speculators are able to use outlook information as a means of depressing the markets for farm crops—an effect similar to that produced by the farmers' reversal of outlook implications.

The results of using outlook information in the production of cotton in the spring of 1931 are given in Table 21. Among the farmers who knew of the existence of outlook information, approximately one-third said they had used it in making their 1931 plans for cotton.

It is quite probable that an undetermined additional number of farmers drew upon the ideas they received from the outlook information.

TABLE 21.—*Specific uses of outlook information, prepared and distributed by Federal and State departments of agriculture and extension services, in production of cotton in 1931 as reported by interviewed farmers who evidenced acquaintance with this service, classified by location in major cotton-production areas*

Use made of outlook information	Farmers living in—			Total farmers reporting
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
	Number	Number	Number	Number
Reduced cotton acreage and quantity of fertilizer applied.....	18	28	42	88
Obtained better idea of prospects for cotton.....	11	8	17	36
Planted more feed crops than usual.....	16	5	1	22
Planted less cotton than might have planted.....	2	3	4	9
Reduced production costs as much as possible.....	2	2	4	8
Followed advice of outlook information.....	2	2	2	6
Other uses, miscellaneous.....	4	2	3	9
Total.....	55	50	73	178
Knew about 1931 outlook information but did not use it.....	126	136	126	388

More than half of the farmers reporting specific applications of outlook information said they reduced their acreages planted to cotton in 1931 or gave answers that implied a reduction. This movement was most pronounced in the coastal plain and the trend toward increased acreages in feed crops was most evident in the Delta. Several farmers who said that as a result of outlook information they obtained a better idea of prospects for cotton probably made more definite changes in their farm plans than this reply would indicate.

The proportion of farmers knowing something of the outlook-information service was greatest among those who had had the most schooling and among the farmers who knew of the service, a larger proportion of those with the most schooling gave favorable opinions of its value. Farmers who had not completed common school, reported proportionally much fewer specific applications of outlook information to their 1931 production plans; this was true even among those who knew what outlook information was.⁴

This raises the question whether the outlook information as it reaches the cotton farmers is stated in terms that enable the maximum number to apply it to their individual farming plans. It also suggests that perhaps many of these farmers need additional elementary and general facts about cotton production and marketing so they can make more accurate interpretations of current conditions and trends as presented in the outlook reports.

It was not possible for the enumerators to obtain an accurate check upon the way outlook information had been circulated among the farmers in the 11 counties surveyed. There was considerable evidence that this had been done more completely in some counties than in others. In one Delta and in one piedmont county, no county agricultural agent was functioning at the time outlook information was being stressed by the extension service in the spring of 1931. In several other instances, the agents had been exceptionally active in holding

⁴ The numerical data on this point are available in mimeographed form. See p. 7.

outlook meetings throughout their counties. The effect of these meetings was very evident in the reports of a number of interviewed farmers who had attended them.

PRODUCTION OF CROPS OTHER THAN COTTON

This section of this report deals with the production of feed crops and with any other crop, livestock, or dairy enterprises viewed by the farmers as major sources of cash income. In addition, replies to a question about recommendations made by county agricultural agents on what to raise are included, since these answers are largely in terms of crops other than cotton.

FEED CROPS

That many Cotton Belt farmers made a determined effort in 1931 to plant at least enough feedstuffs to supply their own farms is indicated clearly in Table 22. A number of farmers, especially in the Delta, said that in 1931, for the first time in many years, they had tried to avoid buying at least some of their feed requirements.

TABLE 22.—Average annual acreage planted to corn, hay, and other feed crops intended primarily for use on home farms, 1928-1931, classified by location of interviewed farmers ¹

Area, county, and State	Average per farmer reporting for—				4-year average
	1928	1929	1930	1931	
Mississippi Delta:	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>
Coahoma, Miss.....	278.0	258.9	256.7	346.1	285.7
LeFlore, Miss.....	210.8	204.5	212.3	307.7	235.9
Washington, Miss.....	281.3	281.5	282.0	424.3	320.6
Average.....	257.8	248.1	250.8	359.4	281.0
Piedmont:					
Anderson, S. C.....	53.8	56.2	56.1	68.7	58.8
Chester, S. C.....	64.8	68.0	73.8	84.7	73.2
Davidson, N. C.....	28.6	29.6	31.4	34.9	31.3
Walton, Ga.....	47.0	51.1	52.5	61.2	53.3
Average.....	50.1	52.3	54.2	63.4	55.3
South Atlantic coastal plain:					
Cumberland, N. C.....	39.9	37.1	39.5	46.3	40.8
Dooly, Ga.....	118.7	96.3	99.4	122.5	108.4
Edgecombe, N. C.....	125.5	125.8	132.5	168.4	138.8
Orangeburg, S. C.....	114.3	115.1	113.8	135.6	120.2
Average.....	97.6	92.4	95.4	117.1	101.0

¹ Averages were obtained by dividing the total number of acres by the number of farmers reporting.

In three years preceding 1931, for which reports of feed-crop acreages were obtained, the changes were mostly very small, increases by farmers in one county being more or less offset by decreases in others. The piedmont showed a slight tendency to increase feed acreages during these years, this being most noticeable in Chester County, S. C., and Walton County, Ga.

Apparently, most of the interviewed farmers have tried to raise a large proportion, if not all, of their needed feedstuffs. (Table 23.) On the other hand, many of the affirmative replies were given in terms of 1931 and the result was still somewhat a matter of anticipation at the time these farmers were questioned. A considerable proportion of the replies under the caption, "Reduces production costs and increases profits" are of this type. Some of the other replies indicate results based on experiences of several past years.

TABLE 23.—*Farmer replies to questions about attempts to grow a larger proportion of the feedstuffs needed on their own farms, classified by location in major cotton-producing areas*

Question and reply	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Have you ever tried to grow a larger proportion of feedstuffs needed on your own farm?	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Yes.....	192	288	294	774
No.....	38	13	4	55
Do not know.....	1	2	2	5
Total.....	231	303	300	834
If so, what was the result? ¹				
Favorable replies—				
Reduces production costs and increases profits.....	71	183	160	414
Has been very satisfactory on the whole.....	37	45	48	130
Successful in growing all feeds needed for many years.....	27	14	31	72
This is proper and safe way to farm.....	5	19	17	41
Miscellaneous.....	1	7	8	16
Total.....	141	268	264	673
Conditional replies—				
Feed raising is profitable only when cotton is very cheap.....	5	12	22	39
Feed crops are more or less a failure at times.....	9	7	3	19
Total.....	14	19	25	58
Unfavorable replies—				
Frequent crop failures make feed raising very hazardous and unprofitable.....	27	—	—	27
It is cheaper to grow cotton and buy feeds.....	5	1	4	10
Miscellaneous.....	5	—	1	6
Total.....	37	1	5	43

¹ This question was asked only of farmers replying "yes" to the preceding question.

Coastal-plain farmers lead in the reply that home-grown feeds are profitable only when cotton is very cheap. The relatively large emphasis upon crop failures as a reason for finding home-grown feeds an unsatisfactory venture refers mainly to corn in the Delta. Other newer varieties of feed crops seem to be proving better under Delta conditions but many farmers have not yet tried them. Sagrain, alfalfa, Lespedeza, soybeans, and cowpeas are in this class.

On the whole, this response of farmers is a strong testimonial in favor of a live-at-home policy for the Cotton Belt, at least under 1931 conditions. Although it may pay to grow cash crops to the more or less complete exclusion of subsistence crops in years when cotton brings a good price, most of the interviewed farmers did not seem enthusiastic about such extreme commercialization as a general principle. Few tractor-operated farms were included in this survey, however, and a similar question put to farmers using tractors in cotton production might return a very different response. Likewise, the same question, asked while cotton was bringing 15 to 25 cents per pound, probably would have elicited quite different answers from many of the farmers. A similar price situation in the future might cause many to change the ideas they expressed in 1931.

CROPS THAT MIGHT BE SUBSTITUTED FOR COTTON

Each farmer was asked to name the crop or crops he would substitute for cotton were he to make a substantial reduction in his cotton acreage. Ninety-eight said that they did not know what to plant in such a situation and 89 said no other crops were practicable in their localities. (Table 24.)

TABLE 24.—*Farmer replies to question, "What would you raise on this farm if you were to reduce your cotton acreage materially?" classified by location in major cotton-producing areas*

Alternative crops mentioned	Farmers living in—			Total farmers replying
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Feedstuffs, primarily for use on own farm:	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Corn interplanted with soybeans or cowpeas.....	19	8	20	47
Legume hays of all kinds.....	29	15	1	45
Corn.....	1	9	12	22
Miscellaneous combinations of feedstuffs.....	35	37	41	113
Total.....	84	69	74	227
Crops used in part for feeding on own farm; in part sold for cash:				
Small grains, usually sowed down to hay.....	11	119	29	159
Peanuts, or peanuts and corn.....		4	58	62
Feedstuffs to be sold through meat animals.....	9	7	12	28
Alfalfa, and corn interplanted with soybeans.....	18		1	19
Miscellaneous feedstuffs and truck crops.....	4	6	8	18
Feedstuffs to be sold through dairy products.....		1		1
Total.....	42	137	108	287
Crops grown primarily to sell for cash:				
Alfalfa.....	44	2		46
Soybeans or cowpeas.....	13	8	5	26
Truck crops of all kinds.....		3	10	13
Tobacco.....			11	11
Potatoes or sweetpotatoes.....	1	6	2	9
Fruits, nuts, and nursery stock.....		2	5	7
Total.....	58	21	33	112
Miscellaneous:				
Cover crops or other soil-improvement crops.....	4	12		16
Diversify more, specific crops not mentioned.....	1	2	2	5
No alternative crops are practicable, locally.....	27	24	38	89
Do not know what to plant instead of cotton.....	15	38	45	98
Total.....	47	76	85	208

Feedstuffs were by far the most popular substitutes for cotton, being named directly or indirectly by 586 men. However, 359 of these farmers either stated that they would sell some of their feedstuffs for cash or market at least a part through meat animals or dairy products, or they named additional crops that could be sold for cash, some of these being interplanted or rotated with the feed crops mentioned. Only 40 farmers named substitute crops not ordinarily fed to livestock or wholly unsuited for such purposes. These are potatoes, sweetpotatoes, truck crops, tobacco, fruits, nuts, and nursery stock.

Reasons given by farmers for naming specific substitute crops are classified under several broad headings in Table 25. By far the largest group of replies stresses reduced production costs or else cash incomes most nearly approaching those obtainable by growing cotton. The type of reason mentioned next most frequently stressed the idea that a live-at-home program was the best policy to pursue, especially in the face of low cotton prices. Adaptability of the crop to local climatic and soil conditions figured with special prominence among Delta farmers and the relationship of substitute crops to the use of commercial fertilizer and the maintenance of soil fertility was emphasized by both Delta and piedmont farmers.

TABLE 25.—Reasons given by interviewed farmers for naming specific alternative crops they would grow were they to reduce their cotton acreages materially, classified by location in major cotton-producing areas

Reason for naming alternative crops	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Crop mentioned costs less to raise, or gives next largest cash income compared with cotton.....	Number 73	Number 154	Number 151	Number 378
Pays to raise your own feedstuffs and live at home, especially when cotton prices are very low.....	41	48	34	123
Crop mentioned is most suitable to this locality.....	34	12	8	54
Increases soil fertility and reduces fertilizer expense.....	29	21	3	53
Fits in best with production plans on this farm.....	6	2	3	11
Enables escape from sole dependence on cotton for cash income.....	1	-----	8	9
Miscellaneous.....	-----	1	3	4
Unable to give reason for alternative crop named.....	5	3	7	15
Total.....	189	241	217	647
No alternative crops are practicable, locally.....	27	24	38	89
Do not know what to plant instead of cotton.....	15	38	45	98
Total.....	42	62	83	187

Following the question about substitute crops, the farmers were asked whether local prices for crops other than cotton had been any inducement to grow these instead of cotton; if so, to what extent. (Table 26.) Practically two-thirds of the farmers replied that local prices offered no encouragement to grow crops other than cotton. The proportion answering thus was considerably higher in the piedmont than in the other two areas. The small number of "Do not know" replies probably indicates that the farmers generally considered themselves fairly well informed on this question.

TABLE 26.—Farmer replies to questions on the extent to which prices offered for crops other than cotton are an inducement to grow such crops in their localities, classified by location in major cotton-producing areas

Question and reply	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
Have local prices for alternative crops been any inducement to grow them in place of cotton?	Number	Number	Number	Number
Yes.....	89	79	112	280
No.....	140	223	183	546
Do not know.....	2	1	5	8
Total.....	231	303	300	834
If so, to what extent? ¹				
Pays to raise your own feedstuffs and to live at home as far as possible.....	31	10	3	44
Small grains are a fair cash crop locally.....	-----	32	12	44
Fruit and truck crops sometimes profitable.....	-----	8	23	31
Financial and other advantages in diversifying farm operations a little.....	17	6	7	30
More soybeans and cowpeas being grown to sell for cash around here.....	13	7	10	30
Peanuts a fair cash-crop substitute.....	-----	1	28	29
More alfalfa being grown to sell for cash.....	21	2	-----	23
Some profit in feeding livestock.....	2	5	15	22
Tobacco a fair cash-crop substitute for cotton.....	1	1	10	11
Dairying offers some financial inducement here.....	2	5	2	8
Fair local market for crops other than cotton.....	2	2	-----	4
Do not know.....	2	-----	2	4
Total.....	89	79	112	280

¹ This question was asked only of farmers replying "Yes" to the preceding question.

Many of the 280 farmers who said that local prices offered some inducement to grow crops other than cotton, cited as supporting evidence either their own adjustments or those of other local farmers. The emphasis as between various alternative crops is much the same as shown in Table 24, except that the financial advantage of raising one's own feedstuffs and food requirements is stressed somewhat more in the Delta.

Each farmer who reported that he received 20 per cent as much cash from some other crop or livestock enterprise in 1930 as he did for his cotton was asked about the acreage planted to this crop, or the size of the enterprise. These data are given by averages per farmer reporting, in Table 27. A very few farmers reported two or more such sources of income in addition to cotton, but in most instances only one was reported. Of the 834 farmers interviewed, 235 reported these other farm activities for 1931.

TABLE 27.—*Statistics on major sources of cash farm income other than cotton, reported by interviewed farmers, 1926-1931*¹

Source of income ²	1926	1927	1928	1929	1930	1931	6-year average ³
Tobacco:							
Average per farm, acres.....	41.5	45.8	48.3	51.4	55.2	46.1	48.2
Farmers reporting, number.....	81	83	88	89	90	90	87
Peanuts:							
Average per farm, acres.....	46.6	49.8	53.7	49.3	50.7	68.8	54.2
Farmers reporting, number.....	20	30	42	47	48	48	39
Wheat:							
Average per farm, acres.....	27.0	29.2	25.4	27.1	23.9	26.6	26.4
Farmers reporting, number.....	20	22	26	28	29	29	26
Watermelons:							
Average per farm, acres.....	10.2	9.5	13.8	17.6	23.0	25.6	17.3
Farmers reporting, number.....	12	15	19	19	19	19	17
Dairy cows:							
Average per farm, number.....	24.5	27.5	29.7	32.7	35.7	37.7	31.7
Farmers reporting, number.....	15	16	17	18	19	19	17
Alfalfa:							
Average per farm, acres.....	51.8	41.3	88.6	95.2	112.2	195.3	103.7
Farmers reporting, number.....	11	15	16	17	18	19	16
Sweetpotatoes:							
Average per farm, acres.....	1.5	3.0	3.6	4.6	6.8	12.1	6.7
Farmers reporting, number.....	2	3	4	5	7	8	5
Soybeans:							
Average per farm, acres.....	20.0	23.3	18.8	90.0	99.0	161.2	80.7
Farmers reporting, number.....	2	3	4	5	5	5	4
Peaches:							
Average per farm, acres.....	60.0	60.0	60.0	80.0	90.0	105.0	75.8
Farmers reporting, number.....	3	3	3	3	3	3	3
Corn:							
Average per farm, acres.....	20.0	20.0	30.0	66.7	66.7	76.0	51.2
Farmers reporting, number.....	2	2	2	3	3	3	2

¹ Any farm product yielding 20 per cent as much cash as was received for cotton for the crop year 1930 was considered a major source of cash income.

² Additional sources, each reported by 1 to 3 farmers, were: Oats, string beans, peas, miscellaneous truck crops, potatoes, strawberries, hogs, poultry, pecans, peppers, asparagus, cowpeas, apples, barley, and rye.

³ All averages were obtained by dividing total acreage or number of animals by number of farmers reporting the same. Since practically all these sources of cash income (except dairying and soybeans) were each reported from only 1 area, the averages in the table do not cover up important area differences in the size of the enterprise.

It is noteworthy that the number of farmers going into most of these enterprises has not shown much tendency to increase, although for several enterprises there has been a marked increase in the acreage per farm reporting. The number of dairy cows per farmer reporting increased 50 per cent from 1926 to 1931, while the number of farmers reporting dairying as a source of income increased by only 27 per cent. The acreage in peaches increased 75 per cent per farmer reporting, but

no more farmers among those interviewed took up peach growing during this 6-year period. The per-farm acreage in alfalfa increased 277 per cent and the number of farmers reporting alfalfa increased 73 per cent. On the other hand, the number of farmers reporting tobacco, peanuts, and wheat increased more rapidly than did the acreage per farmer reporting.

ADVICE OF COUNTY AGRICULTURAL AGENTS

According to the interviewed farmers, county agents in all three areas have been active in advising the planting of more feed crops. (Table 28.) In the Delta, this advice as reported by the farmers was not so much in favor of a live-at-home program in its broadest application as it was in the other two areas. In this farmer response, the Extension Service is clearly credited with a determined effort to get cotton producers away from purchasing so large a part of their feed and food needs as has been their custom.

TABLE 28.—*Farmer replies to questions about advice of county agricultural agents on the most suitable crop and livestock enterprises for their localities, classified by location in major cotton-producing areas*

Question and reply	Farmers living in—			Total farmers interviewed
	Mississippi Delta	Piedmont	South Atlantic coastal plain	
What crop or livestock enterprises has county agent recommended to farmers of this locality?	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
More feed crops of various kinds ¹	94	47	18	159
Feed and food crops permitting a live-at-home program.....	26	37	39	102
Meat animals to sell, and feed for them.....	6	28	63	97
Crop rotation and more diversified farming.....	12	10	23	45
Truck crops, or truck crops and some meat animals.....			17	17
Soil-improvement crops of all kinds.....	2	9	5	16
Less cotton.....	3	11	1	15
Dairying.....		7		7
Miscellaneous.....	4	1	2	7
No advice given.....	12	14	16	42
Do not know what the county agent has advised.....	72	139	116	327
Total.....	231	303	300	834
What do you think of this advice?				
Favorable replies—				
All right, very helpful, should be followed.....	142	136	149	427
Conditional replies—				
Advice sometimes good, sometimes worthless.....	1	2		3
No market left if all farmers heeded this advice.....			1	1
Unfavorable replies—				
Advice is unsound or very impractical.....	3	9	13	25
County agent system does not help farmers.....	2	3	11	16
Miscellaneous.....			5	5
Do not know.....	83	153	121	357
Total.....	231	303	300	834

¹ Not necessarily all required by farm on which grown.

In the matter of specific farm enterprises to supplement cash income from cotton, the raising of meat animals (especially hogs in the coastal plain and beef cattle in the piedmont), including feeds for them, is most prominent in these farmer replies. Truck crops come next. However, in two Delta counties a number of replies classified under "More feed crops of various kinds" said that the county agents had suggested alfalfa both as a feed crop for the farms on which it was raised and as a cash crop.

A number of farmers were unable to state what advice their county agents had given. In two counties there had been no county agent for sometime before the survey, although new agents had been employed shortly before the interviews. This accounts for some of the "Do not know" replies. The rest of the farmers who were unable to tell what the agents had advised had probably never taken the trouble to find out.

A large majority of the farmers who knew what crops and other farm enterprises their county agents were advising, agreed that this advice was in the right direction. But the enumerators noted some instances in which the farmer, although agreeing with the agent in theory, took the attitude that his advice was for the other fellow to put into practice. A few cited reasons why they were unable to follow the recommendations on their own farms.

SOME OBSERVATIONS BASED UPON ENUMERATORS' FIELD NOTES

In addition to holding personal interviews with farmers, the enumerators kept field notes of their own observations concerning cotton-acreage adjustments. Upon completing work in each county, the enumerators met to go over the general situation as they had observed it. Not only the farmers' replies to specific questions, but much incidental conversation with farmers, bankers, merchants, agricultural extension workers, and in some instances, school administrators, lies behind the material hereafter presented. In the main, this material affords an additional explanation of why the surveyed areas do not seem to have made big changes in response to situations which on first judgment would appear to urge more drastic adjustments. Forces other than the profit motive underlie many decisions made by farmers in response to the influences that are to be described. Most of these forces have been recognized and described by others but the part they play in conditioning cotton-acreage adjustments and the fact that they were noticed by the enumerators in the present survey warrant a brief discussion here. No attempt is made to measure their relative importance. They are intermingled in the complex background of the production of the South's greatest money crop.

A "COTTON CIVILIZATION"

Except in the case of one or possibly two counties, the enumerators felt that they were dealing with what might properly be termed a "cotton civilization"—that is, a way of life so closely related to the production and sale of cotton that anything which materially changes the cropping system tends to alter the whole economic and social structure. Not only does the life of the families on their own farms seem to be thus closely bound to cotton and its demands upon them, but their institutions, including schools, government, and churches, their trade and credit relationships, their systems of land tenure; and their recreational or leisure-time activities, appear to be dominated to a marked degree by the production of this one crop.

Adjustments in the farm enterprise that tend to overthrow or reduce the domination of cotton to any appreciable extent encounter not only what may be called a normal individual resistance to change, but also face sometimes what may be a much greater resistance set up by institutions and agencies that in turn have been so profoundly influenced by the traditional cotton régime.

To illustrate, suppose in a certain farming community where for years cotton has been substantially the sole source of cash farm income a careful survey of alternative opportunities based upon soil conditions, market prospects, costs of production, and other factors, suggests that alfalfa may be a fair source of cash income for some of the farmers. Not only are its labor demands greatly different from those of cotton, but its marketing season and many other elements in its production and sale are different. Among the changes in local institutions that might be required to accommodate farmers who decided to produce alfalfa, the following suggest themselves at once: New local facilities for marketing alfalfa, including both channels of communication with possible market outlets and physical equipment for shipping the crop; changes in the terms of bank credit; possibly a change in the time when the taxes are to be paid, etc. If, instead of alfalfa, a new crop should be chosen that encouraged the employment of children's labor at seasons of the year different from those now required in growing cotton (for instance, some of the truck and fruit crops), local production of this crop might mean serious derangements in school sessions.

Considerable resistance to change may be set up by those persons or agencies whose volume of business or profits may be threatened by the change. Ginners, cotton buyers, local warehousemen, and operators of local oil mills are the groups most immediately affected by a swing to crops other than cotton. Not infrequently these groups practically control local sources of credit so that their resistance to change may be made yet more effective by the power which this financial control bestows.

Years of raising cotton have fixed certain habits upon the people who grow it. If little else is produced on the farm, there are alternate periods of long work hours and relative unemployment, so far as the crop-work schedule is concerned. The country schools often close during periods when the children help in the cotton fields. During the slack period between cultivation and picking time, the country churches have their "protracted meetings" and the farm families enjoy the social side of these events to the full. It is difficult for men whose work has been so highly seasonal to tie themselves and their families down to the all-year routine of a dairy enterprise. Most other suggestions for diversification in crop and livestock enterprises involve interference with behavior habits of long standing. Even an effort toward home gardens and feed crops meets some resistance.

A CROPPER PROBLEM

The share cropper and the share hand are prevalent in the Cotton Belt. The northward migration in search of industrial work has caused shortages of farm labor at some times since 1920, but the effect of city unemployment began to make itself felt in a reverse migration back to the cotton farms in the spring of 1930. This was even more pronounced in 1931, according to the reports of many interviewed farmers. The returning migrants were often penniless. To allow them to become wards of the counties would create unbearable burdens upon depleted public treasuries and add taxes to already crushing local levies. So, owners of large farms, and in many instances owners of smaller units, opened abandoned cottages, or had families double up in their living quarters to accommodate the returning tide

of jobless persons. In 1931, with credit much restricted and with the prospect for the cotton price far from bright, more planters than usual furnished croppers and hands with subsistence rations instead of giving them cash advances—a final settlement to be made after the crop was sold.

Other farmers told the enumerators that, although from purely business motives they should have materially reduced the number of share croppers or share hands on their places in the spring of 1931, they did not make this change because there was no alternative work available to these families, some of whom had been on the same farm for many years. Again, rather than turn them away to starve or to live on charity, the planters kept them to make the 1931 crop, trying at the same time to hold down production costs. The human factor triumphed over ordinary business ethics in a majority of these cases. Many other industrial and commercial enterprises apparently did not follow such a policy. In fact, their unemployed, in numerous instances, became additional burdens upon the already hard-pushed cotton planters.

Another phase of the cropper problem that makes for resistance to acreage adjustments is the intelligence level of many of this labor group. They know only how to grow cotton—and by rather elementary methods. To persuade such workers to raise other crops is a difficult problem involving patient training, and to trust many of them with unfamiliar and sometimes expensive equipment that may be required in growing other crops is extremely hazardous. The labor demands made by the cotton crop as produced in the traditional manner made possible the use of much low-grade labor that is not as well adapted to other farm enterprises. Thus, part and parcel of the Old South's struggle to get away from its sole dependence upon cotton are the problems of training thousands of more or less illiterate workers and of devising methods of paying them for the other crops raised, upon a basis that will both encourage the worker to do his best and give the owner a fair return.

Among the small landowners and cash tenants of the piedmont and coastal plain, the enumerators encountered another back-to-the-farm movement in 1931. Sons and daughters, some of whom had left the home place years before, finding themselves out of work in the industrial centers, came home again, not infrequently bringing sizable families with them. These augmented supplies of local labor that were in most cases already ample. But the ties of blood are strong. So the family board was extended to provide for the added numbers, home gardens were enlarged, and although cotton acreages were reduced somewhat under the 1930 figures, the reductions were probably considerably less than would otherwise have occurred. Again agriculture became the buffer in absorbing some of the unemployed whom industry cast loose to shift for themselves.

CLIMATE

To date, man's ingenuity has progressed considerably farther in finding ways to combat cold than to combat heat. For much of the South a farm-production plan that contemplates heavy manual labor during the hottest days of summer, even though the financial prospects may be quite hopeful, is much less attractive to the average human

than is a plan that provides a lull during part of this season. Cotton provides this lull.

Another influence of climate appears in the winter. Where roads freeze and stay frozen for considerable periods of time, heavy hauling is possible even though the roads are rough. Where unpaved roads may become quagmires for days at a time and all travel must be on foot or on horseback, farm products that should be moved to market at frequent and regular intervals throughout the year, and highly perishable products, are not practicable. Whole milk is in this class and bad roads may interfere with the selling of cream. Some of the early vegetables and fruits are subject to the same limitation. Baled cotton, stored under cover on the farm, does not deteriorate seriously if impassible roads delay hauling it to town, although the farmer's ability to take advantage of favorable market developments may be hampered by inability to deliver at strategic times and places.

PRODUCTION CREDIT

Ordinarily a cotton crop is an unusually good basis for a production loan secured by a crop lien. The necessity of ginning makes it difficult for the borrower to dodge the lien by selling without the lender's knowledge; neither can a portion of the crop be converted to other uses on the farm. There is always a market available for the cotton—an added protection for the creditor. Furthermore, in spite of occasional local crop failures, cotton has been, on the whole, a rather good production risk. The relatively large amount of hand labor and the small outlay of capital in equipment and animal power required to make a crop have been an inducement to men without means to try to grow it. In normal times all but the most questionable risks have been able to borrow at the banks or arrange for a charge account with a "time merchant" to carry them through the crop year. This system has made money for many business men, lost money for many others, and carried thousands of farm families from year to year.

On the other hand, when crops other than cotton are suggested, or a reduced cotton acreage is urged, a whole train of complications is introduced into the credit situation. Uncertain market outlets, limited knowledge of growing the crop, added risks of crop failure, larger initial investments for new equipment, seeds, or fertilizers, longer periods between start and finish of the enterprise (especially in livestock production), less complete control over sale of product to satisfy the lien, and various other problems may arise. Bankers and merchants who extend credit to farmers in the Cotton Belt have a distinct interest in such a situation. Consequently, when cotton prospects are bad, it is not altogether uncommon for many farmers to report (as they did in this survey) that although local merchants and bankers were, in public, urging farmers to plant less cotton and to undertake new farm enterprises, in private and among their borrowers, the same men were demanding at least the usual cotton acreage and sometimes increased cotton acreages, in order to make their loans more secure.

CONCLUSIONS

The following statements, based upon data collected in this survey constitute what appear to be the most significant findings. They are put forward not necessarily as applying to general conditions through-

out the Cotton Belt, but as indicative of trends and situations in the 11 surveyed counties. Only to the extent that these sample counties are typical of larger areas, are the conclusions valid. The reader should keep this limitation in mind in applying these statements to other localities.

APPLYING TO OPERATIONS OF COTTON PRODUCERS

The need and opportunity for exercising more skill and ingenuity in meeting farm management problems were plainly exhibited in the replies of many farmers. But a much greater knowledge of the economic conditions that face the cotton industry is required by most of these farmers as a background. Many keep more or less up to date on the current price for their major crop, but few have sufficient information to be able to interpret in terms of their own farm plans the basic changes in world market conditions that may occur from time to time.

The movement toward home-grown feeds and foods is the most hopeful sign in the direction of safe farming programs, particularly under depression conditions, that is indicated in the survey. But this movement can go much further than it has, especially among tenants; it being recognized, of course, that the planter class must lead the way in any such change. The hearty approval given to the work of those county agricultural agents who have tried to get the live-at-home idea adopted by as many people as possible (this approval being especially evident in replies from the better schooled, larger scale operators) should at present commend itself with unusual force to those other farmers who are still trying to buy relatively high-cost feeds and foods with very cheap cotton. The statements from most of the men who seemed to the enumerators to be above the average in their successes as farm operators, almost invariably expressed or implied the idea that their first principle of farm management, at least under existing circumstances, was to produce a living for family and livestock, as far as possible, from the land they were cropping.

The reasoning used by farmers in making acreage adjustments is based too much on retrospect and too little on current conditions or prospects. This seems to be one of the reasons why agricultural production has so often failed to avoid, as much as it might, alternate cycles of over and under production. This situation challenges the man who is really eager to improve his ability as a farm operator, to become better informed on current conditions and trends rather than to rely exclusively on his own past experiences as bases for future plans.

According to many farmers, especially those better schooled, there are available some few limited opportunities in the form of cash crops or other farm enterprises to replace part of the cotton now being planted. Such opportunities are not evenly distributed geographically; in the minds of these men they are confined more to the Delta and coastal plain, particularly the latter, although a few were reported in every county studied. Many of the interviewed farmers who have tried such enterprises on a conservative scale at first, have expanded them gradually in recent years, usually with corresponding reductions in cotton acreage. The alternatives, however, as several farmers stated, are even more susceptible than cotton to extreme price declines if expanded beyond the ability of the markets to absorb the

products at profitable prices. Thus any expansion must be slow and larger market opportunities should be found before substantial increases in production are made. Again, the value of an adequate outlook information service widely distributed and effectively used is indicated.

APPLYING TO AGRICULTURAL EXTENSION SERVICES

The live-at-home campaigns put on by the agricultural extension services in all the States covered by this survey have won the commendation of the more progressive farmers. To a considerable extent the campaigns have been effective among them. On the other hand, under the plantation system of farming, raising needed feeds, and particularly foods, is more difficult than it is on smaller units farmed directly by the owner with but few or no share croppers to look after. Yet many of these large-scale farms have achieved self sufficiency in feedstuffs and a number are making considerable progress in growing their own food supplies, including meats. This movement deserves all possible help at least as long as cotton prices remain out of line with prices that the farmers pay for production and living goods. Especially in view of the migration farmward, that is being felt in many parts of the South, is the live-at-home program needed.

The results of this survey seem to indicate that the most effective means of encouraging cotton-acreage adjustments in line with present conditions in the world demand and supply of cotton is to place major emphasis upon the adoption of the live-at-home goal on the farms of the South. This does not mean that the farmers should not be given the most authentic economic information that can be secured on cotton production and marketing. This economic service is apparently well liked by a large majority of the farmers who receive such information from official sources. But at the present stage of farmer thinking and tendency to respond in acreage adjustments, the live-at-home campaign seems to be a more effective means of holding the cotton acreage within reasonable limits than does the giving of economic information alone.

Although the fact is not shown in the statistical data in this report, members of cooperative cotton-marketing associations were found to be decidedly more likely to use economic information as a basis of cotton-acreage adjustments and to adjust in line with such information, than were nonmembers. This suggests that the Extension Service might use the associations as one channel through which to circulate economic information where it is most likely to be used.

The results of this survey raise some questions concerning the outlook information service as it now reaches the farmers. The first question is on the use of the daily press as a medium for circulating such material. A great majority of the farmers seem to rely upon daily papers as their major source of economic information about cotton; yet either many of these farmers are unable to interpret what they read, or the papers do not carry enough information to give farmers an adequate understanding of current conditions, according to the evidence obtained in this survey.

Another question about the outlook service is on its own assumptions of farmer knowledge of economics. A few farmers who reported reading the 1931 cotton-outlook material complained that it was too difficult for them to interpret without assistance from others. A few

said that the contents were not sufficiently specific for them to apply on their own farms. Several misunderstood the service altogether as shown by their demand that these reports predict prices for the coming crops not only of cotton but of other products grown in their respective localities. In counties in which well-attended local outlook meetings had been held the interviewed farmers who had been present seemed much more accurately informed on what the 1931 outlook reports contained than did other farmers who had obtained their information only by reading. This again raises the question of effective avenues of approach to farmers in spreading outlook information.

The home economists can render a valuable service in several ways. The enumerators in their contacts with home makers (many interviews were conducted with both farmer and home maker present) became convinced that many of these women were fully as influential in deciding upon farm-management plans as were their husbands. The home demonstrator and the county agricultural agent apparently have a common point of approach in encouraging more rational adjustments in the farm business.

APPLYING GENERALLY

There are many hindrances to rapid readjustments in the production of cotton. Some of these are primarily economic, others are found in the social institutions, personal habits, and farmer psychology that have been built up from long experience with a "cotton civilization." The fact that many industrial enterprises have discharged thousands of employees has hindered readjustments on many Cotton Belt farms, as it doubtless has done in other parts of the country. Agriculture has borne not only its own burden of the deflation but has furnished employment or subsistence to many of industry's unemployed although this has helped to increase the accumulated surplus of cotton and perhaps of other crops.

Farmers are not motivated by purely economic considerations in organizing their farms and in meeting the day-to-day problems of their business. Throughout the progress of this survey the enumerators were impressed by the fact that a great many of the operators with whom they talked are concerned primarily with making a living rather than with gaining the maximum cash profit. Not that these men fail to consider profits, for they give every evidence of concern over the size of their farm incomes. But as one man expressed it, "We may not be doing all we can to make the dollars come to us, but we surely are good liver in this community."

Thus all attempts to stimulate more rational planning and management on individual farms must take into account not only the economic factors that are present but the whole social and psychological world in which farm people live.

ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE WHEN THIS PUBLICATION WAS LAST PRINTED

<i>Secretary of Agriculture</i>	ARTHUR M. HYDE.
<i>Assistant Secretary</i>	R. W. DUNLAP.
<i>Director of Scientific Work</i>	A. F. WOODS.
<i>Director of Regulatory Work</i>	WALTER G. CAMPBELL.
<i>Director of Extension Work</i>	C. W. WARBURTON.
<i>Director of Personnel and Business Administration</i>	W. W. STOCKBERGER.
<i>Director of Information</i>	M. S. EISENHOWER.
<i>Solicitor</i>	E. L. MARSHALL.
<i>Bureau of Agricultural Economics</i>	NILS A. OLSEN, <i>Chief</i> .
<i>Bureau of Agricultural Engineering</i>	S. H. MCCRORY, <i>Chief</i> .
<i>Bureau of Animal Industry</i>	JOHN R. MOHLER, <i>Chief</i> .
<i>Bureau of Biological Survey</i>	PAUL G. REDINGTON, <i>Chief</i> .
<i>Bureau of Chemistry and Soils</i>	H. G. KNIGHT, <i>Chief</i> .
<i>Office of Cooperative Extension Work</i>	C. B. SMITH, <i>Chief</i> .
<i>Bureau of Dairy Industry</i>	O. E. REED, <i>Chief</i> .
<i>Bureau of Entomology</i>	C. L. MARLATT, <i>Chief</i> .
<i>Office of Experiment Stations</i>	JAMES T. JARDINE, <i>Chief</i> .
<i>Food and Drug Administration</i>	WALTER G. CAMPBELL, <i>Director of</i> <i>Regulatory Work, in Charge</i> .
<i>Forest Service</i>	R. Y. STUART, <i>Chief</i> .
<i>Grain Futures Administration</i>	J. W. T. DUVEL, <i>Chief</i> .
<i>Bureau of Home Economics</i>	LOUISE STANLEY, <i>Chief</i> .
<i>Library</i>	CLARIBEL R. BARNETT, <i>Librarian</i> .
<i>Bureau of Plant Industry</i>	WILLIAM A. TAYLOR, <i>Chief</i> .
<i>Bureau of Plant Quarantine</i>	LEE A. STRONG, <i>Chief</i> .
<i>Bureau of Public Roads</i>	THOMAS H. MACDONALD, <i>Chief</i> .
<i>Weather Bureau</i>	CHARLES F. MARVIN, <i>Chief</i> .

This circular is a contribution from

<i>Bureau of Agricultural Economics</i>	NILS A. OLSEN, <i>Chief</i> .
<i>Division of Farm Population and Rural Life</i> .	C. J. GALPIN, <i>Principal Agricultural</i> <i>Economist, in Charge</i> .

